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ABSTRACT

These proceedings contain 40 presentation papers, four alternate papers, and seven symposia from the Twenty-Second Adult Education Research Conference. The 44 papers report on research, research problems, and research possibilities, including comparison of student performance in two curricular approaches, trust in small groups, overcoming culture-specific limitations on interviewing, evaluation model for nontraditional master's degree programs, continuing professional education and improved professional practice, motivational orientations and participant satisfaction with instructional environment, determining competent performance, disciplinary-interdisciplinary continuum of university continuing education noncredit programming, brain lateralization in adult learning, developing an evaluation usage model, employee assistance program, laboratory adult education, relationship between creative responses and self-esteem, importance of community needs, taxonomic framework for adult education practices, second language learning, andragogical counseling techniques, teacher effectiveness, roles of continuing education program planners, learning strategies, and cognitive and affective outcomes of computer-assisted instruction. Focuses of the symposia are alternate approaches to research on professional performance and related learning activities; reasons for participation in continuing professional education; naturalistic inquiry methodologies appropriate to adult learning research, doing philosophical research in adult education, early approaches to worker's education, contributions of research paradigm to academic program reviews, and literature as data source in research. (YLB)

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DEKALB, ILLINOIS

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A COMPARISON OF THE PERFORMANCE OF ADULT STUDENTS IN COMPETENCY-BASED AND TRADITIONAL ACADEMIC CURRICULA

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INTRODUCTION

The recent trend toward the expanded use of competency-based curriculum in literacy education has resulted in increasing numbers of adult educators seeking research data regarding the relative worth of this new curricula. The apparent need for more information regarding the competency-based curriculum approach in comparison to the existing traditional adult academic curriculum approach was a major reason for this study.

The purpose of this research was to compare two adult education curricular approaches--a traditional academic and a competency-based approach--in terms of performance of students in adult literacy programs. The purposes were (1) to gather data regarding achievement of students in competency-based programs and in traditional academic programs, (2) to evaluate the effect of age on student achievement, and (3) to test for a relationship between individual learning style and student achievement. The need for investigation of this type is supported by the lack of research on the relative effectiveness of the major curricula in the field. Also, the decade of the 1980's brings forth the new challenges of a rapidly aging society, new technology, greater participation in education opportunities by women and minorities, and a national focus on the need for literacy education.

METHODOLOGY

The study was conducted at two large mid-western cities, and had 121 participants randomly assigned to either a control (traditional academic) or an experimental (competency-based) group. The instructors involved were familiar with the treatment or control curriculum used in their groups, and the instructional time was set at a maximum of 200 hours per student. The curriculum for the control group consisted of the traditional adult academic curriculum in use in both cities, and the curriculum for the experimental group consisted of five competency-based Adult Performance Level (APL) units.

The major hypotheses (stated as the null hypotheses) tested were:

1. There will be no significant difference in the reading achievement of adult students enrolled in the experimental (competency-based) and the control (traditional academic) groups.

2. There will be no significant difference in the computation achievement of adult students enrolled in the experimental and the control groups.

3. There will be no significant difference in achievement between adult students enrolled in the experimental and the control groups on the five content areas (Community Resource, Occupational Knowledge, Consumer Economics, Health, Government and Law).

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4. There will be no significant difference in achievement between adult students enrolled in the experimental and the control groups on the five skill areas (Identification of Facts, reading, writing, compuetation, problem solving).

5. There is no significant relationship between age and achievement for adult students.

6. There is no significant relationship between achievement and learning style.

The dependent variables were reading achievement, computation achievement, and functional competency. Functional competency tasks related to daily living situations as specificied by the Adult Performance Level (APL) skill and content areas. These variables were measured by two instruments: the Adult Basic Learning Examination (APLE) and the Adult Performance Level Tests (APL). The independent variables were age and learning style. The relationship of age and learning style to achievement was measured by the Learning Style Inventory (LSI).

The first four hypotheses were tested using an analysis of variance on the mean difference between pre- and post-test gain scores of the experimental and control groups. The dependent variables are (a) ABLE Reading, (b) ABLE computation, (c) APL Content Areas (5), (d) APL Knowledge Areas (5). The fifth and sixth hypotheses were tested using Pearson's correlation coefficient in the relationship between two independent variables (i.e., age and learning style) and the dependent variables above.

MAJOR FINDINGS

This study compared the performance of adult students in two different curricula. Relationships were found between the criterion variables (pre-test and post-test) and the factors (competency-based curriculum and traditional academic curriculum). The findings are summarized below.

Reading.

The T-test results on the pre- and post-test mean scores of the ABLE Reading Examination revealed no significant difference. The experimental group pre-test mean score of 53.81 was 1.14 greater than the control group pre-test mean score of 52.67. The post-test mean scores of the two groups also revealed no significant differences ($p = .12$). However, the post-test mean score of the experimental group dropped to 52.25 while the post-test mean score of the control group increased to 54.61. The mean score difference between the two groups at the end of the treatment was 2.42, with the control group now having the higher average. An analysis of covariance was used to test the meaning of this apparent "flip", and the differnece between the two groups was found to be significant at the .05 level ($p = .05$).

The control group started out behind the experimental group in reading achievement and after treatment ended up ahead of the experimental group. Apparently the traditional academic method of instruction was more effective in teaching reading skills than the competency-based method of instruction. Hypothesis 1 was rejected.

Computation.

The T-test results on pre- and post-test mean scores of the ABLE Computation Examination revealed a significant difference on pre-test mean scores and on post-test mean scores. The experimental pre-test mean score of 11.44 was 4.03 points behind the control pre-test mean score of 15.47. The experimental group did not make up this difference after the treatment. In fact, the experimental mean score of 13.13 was 6.16 points behind the control group mean of 19.27 on the ABLE computation post-test. It appears that the experimental group was definitely behind the control group in computation achievement at the initiation of the study, and according to post-test mean scores fell further behind the control group at the conclusion of the study.

However, an analysis of covariance correcting for initial differences on pre-test mean scores reveals no significant difference between the two groups. The experimental group adjusted mean of 16.41 is only 2.09 points behind the control group adjusted mean of 18.32. This reveals that the experimental group was able to make sufficient gains during the treatment to remove the significant difference between the two groups on the pre-test mean scores.

The ANCOVA revealed no significant difference between the two groups on computation post-test scores (p = .20). Apparently the competency-based method of instruction was as effective in teaching computation skills to the adult learner as the traditional academic method. Hypothesis 2 was upheld.

Knowledge Areas.

The T-test results on all pre-test mean scores of the Adult Performance Level Exam (APL) revealed significant differences in four of the ten knowledge (content and skill) areas. The areas of Consumer Economics (p = .05), Government and Law (p = .04), Identification of Facts (p = .01), and writing (p = .04) were all significant at the .05 level.

The pre-test mean scores on the remaining six knowledge areas--community resource, occupational knowledge, health, reading, computation, and problem solving--reveal that the experimental group was behind the control group at the beginning of the study in every area except reading. The two groups showed very little difference in reading before (.07 points) or after the treatment (.45 points). In the remaining five areas the two groups appears to gain equally as a result of the treatment, with the experimental group remaining slightly behind the control group in post-test mean scores.

An analysis of covariance revealed no significant differences between the two groups in the areas of Consumer Economics, Identification of Facts, and writing. The experimental group recorded sufficient gains in each of these areas to wipe out initial differences in the pre-test mean scores. Although the ANCOVA revealed no significant difference in post-test mean scores, the experimental group did gain slightly on the control group in the acquisition of knowledge in each of these areas.

The only significant difference between the two groups was in the content area of Government and Law (p = .45). The control group adjusted mean of 12.64 was 3.31 points higher than the experimental adjusted mean of 9.31.

Thus, the third and fourth hypotheses were upheld for every knowledge area except the Government and Law content area.

Age and Learning Style.

The Pearson's correlation coefficient was used to test whether a linear relationship existed between age and student performance and learning style and student performance.

A positive correlation was found (r = .30) between age and ABLE Reading pre-test. The remaining dependent variables--ABLE Computation pre-test, ABLE Total pre-test, ABLE Reading post-test, ABLE Computation post-test, APL Total post-test--did not exhibit a positive linear relationship with age. The data reveal that age appears to have little affect on a student's ability to learn in either a competency-based or a traditional academic setting. These findings supported the fifth hypothesis of this study.

A positive correlation was found to exist in three of the four LSI assessment areas. The LSI conditions area (goal setting) correlated positively with ABLE Computation. The LSI content area (numeric) correlated positively with ABLE computation. Also, the LSI Mode areas of Listening and Reading correlated positively with APL Total and ABLE Reading. The LSI Expetency area did not correlate positively with any of the dependent variables. The number of significant correlations between learning style and student achievement indicates a need to consider this factor in the counseling and teaching of the adult learner. The sixth hypothesis was rejected as there were significant differences between learning style and student achievement.

CONCLUSIONS

On the basis of these findings, the following conclusions may be drawn relative to the problem explored in the study.

1. The traditional adult academic method instruction appears to be more effective in teaching reading to adult students than the competency-based method of instruction.

2. The competency-based method of instruction is as effective in teaching computation skills to the adult learner as the traditional academic method of instruction.

3. The competency-based and traditional academic methods of instruction are equally effective in teaching adult students in the five competency-based skill areas.

4. The age of the adult student has no affect on his/her ability to learn in either the competency-based or traditional academic setting.

5. The learning style of the adult student is an important consideration in assessing how adults learn. There is a relationship between an adult student's learning style and overall traditional academic and competency-based performance.

IMPLICATIONS

This study has provided a beginning in basic research in this area. Much more needs to be done. The following areas are by no means exhaustive, but research into these areas is needed.

1. Additional controlled comparison studies investigating the effects of instruction are needed.

2. More research is needed to ascertain if the diploma/certificate from competency-based programs is accepted by colleges and employers. This research should also examine the performance of graduates in school and on the job, and the relationship of performance to:

   a. acquisition of the certificate/diploma

   b. competencies learned to acquire the certificate/diploma.

3. There is a need to develop and research techniques for recruiting and placing students into competency-based programs.

4. Research is needed to investigate the effects of different ways of incorporating competency-based instruction into existing adult education programs.

5. The relationship of basic skills and coping skills should be further investigated.

6. More research needs to be conducted to determine competencies necessary to functioning in modern society.

The list of areas for further research is almost endless. The important element to consider is that the segment of our total population called "adult students" is growing, and with that growth are emerging new challenges and opportunities for adult education. Adult educators should be prepared to respond to adult students' special needs and interests.

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THE STUDY OF TRUST IN SMALL GROUPS FROM A LIFE-SPAN PERSPECTIVE

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The impression is often given by some who write about small groups that trust can be established in a group through specific procedures. These procedures range from what has become known as trust exercises to the encouragement of openness and empathy among members within the group. There is an unmistakable implication that if these procedures and approaches are used correctly and appropriately trust can be established in a relatively short time period, albeit, in somewhat less than an hour and generally not longer than one group session.

Such assertions do not agree with my personal experiences and my observations of other group leaders. These observations may be evidence of my failure and the other group leaders' failure to apply either correctly or appropriately the procedures and approaches to establish trust. That possibility has to be considered and its acceptance or rejection will have to wait until there is evidence from empirical tests. This paper does not address that question or discuss that type of investigation but reports on another line of investigation. My observations on the establishment of trust in groups lead to an explanation different than the explanation suggested above.

Gibb (1964), Zand (1978) and Rogers (1961) among others define trust within the interpersonal exchange system of information, influence and control. Rogers provides a list of specific relationships based on an eclectic paradigm of the fully functioning individual. I propose that trust is more fully and accurately conceptualized when viewed from the life-span perspective. This proposition may be more readily understood from an account of an incident in a small group.

About a half an hour into the third meeting of a group, Charles, a young man in his late twenties, said he appreciated the insight Sid had shared with him. He agreed with Sid that he, Charles, tries too hard to be nice and this being nice often results in being "walked-on." He cited cases where students would try to take advantage of him. He added that he wished he could be more consistent. Sarah, a young woman also in her late twenties, asked him, "Are you afraid they will not like you as you are?" Charles responded to the implication of Sarah's question, "I am not their friend." Charles went on to say more about his inconsistency in dealing with students. Carol, a woman in her middle forties, asked, "Are you bending in ways that are really helping others?"

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This brief account of the episode can be examined from the perspective of the psychosocial viewpoint of ego psychology. The psychosocial theory of ego stage development presented in the writings of Erik Erikson (1950, 1968) is used here as the framework for the life-span perspective to examine trust within the group.

An analysis of the concerns expressed in the above incident fit the specifications for Trust versus Mistrust set out in the psychosocial framework. Mistrust is expressed in such concerns as being "taken advantage of," "being consistent," while Trust is expressed by "bending" as a way of showing caring. The evidence from the analysis of the interactions shows that the manifest psychosocial content is Trust versus Mistrust.

A careful examination of these interactions reveals that the manner in which Charles responded to Sarah and Carol indicates he did not perceive their statements addressing his concerns. Yet their contributions did deal with aspects of Trust. Obviously there are different aspects constituting Trust and conceivably this provides an explanation for the lack of correspondence. Sarah's concern with the issue of liking carried the message of establishing Trust by taking a person into one's life-space. Charles was more concerned about being consistent in his relation with others and in that aspect being trustworthy. Each was speaking to the topic of Trust versus Mistrust but they were addressing different aspects. Charles was concerned with consistency as an aspect of being trustworthy. Sarah was concerned with giving as a form of accepting. When we examine Carol's comment, we are made aware of another aspect. Carol was concerned with showing caring by being flexible, that is, giving by allowing a give and take within a caring environment.

The statements of the three members may be coded in the following manner:

Charles:	1-A
Sarah:	1-B
Carol:	1-C

The first number identifies the ego stage that is being addressed specifically and accordingly is referred to as the manifest ego stage content. The letter notation stands for specifications of the manifest ego stage content.

This documents the lack of congruency on aspects of Trust versus Mistrust that existed and would appear to be an acceptable explanation in the sense that the members appeared to be missing each other's contributions. To pose this difference as the basis of the difficulty would appear to be too simple an explanation. The identification that members are speaking to different aspects of a topic is readily recognized unless some other condition is preventing the members from reaching this realiation. Since the members did not give any evidence that they were aware of talking about different aspects of Trust versus Mistrust, it was possible that some other more basic psychosocial phenomenon was contributing to the problem. A re-examination of the episode may provide the evidence for an explanation.

Charles' remarks about his relations with his students provided evidence that he had attempted to be accepting and to open himself up to them as a person and not remain with the narrow definition of his role. Sarah appeared to take this behavior to mean that he was not only interested in developing *Trust* but also in furthering closer and more meaningful relationships. These psychosocial relationships are attributes of *Intimacy versus Isolation.* Carol apparently saw another aspect because she spoke to the issue of caring for those whom you have as your charge. This is the view of student and teacher from the psychosocial perspective of *Generativity* versus *Stagnation*.

Previous work (Boyd and Wilson, 1974) with small groups led to the idea that perhaps the members were addressing the topic of *Trust* versus *Mistrust* from the perspective of the ego stage which for them was time specific. During the course of our lives there is an age period when each ego stage is at its ascendency. For example, for young adults the ego stage of *Intimacy* versus *Isolation* is at its ascendency. Even though the group was only at the third session, there was sufficient data upon which to describe both Charles and Sarah as being in the ego stage of *Intimacy* versus *Isolation* and Carol as being in the ego stage of *Generativity* versus *Stagnation*. The idea that perhaps communications failed between people because a topic was being addressed from different ego stage crises appeared worthy of being tested. The conjecture was posed: A dyad will have observable lack of congruency with verbal interactions when the contextual psychosocial content is different and/or the manifest psychosocial content is different between the two members of the dyad and they do not recognize the existence of the difficulty in terms of the contextual and/or manifest content.

The task now is to test that conjecture. Three methodologies were used to obtain empirical evidence, namely, case study analysis, interview and a self-report instrument. The case study methodology has not been readily accepted by many social scientists in the United States, although recently some inroads against this position have been made (Smith,1979) It is beyond the scope of this paper, however, to examine all the issues and to review the various positions on each side of the argument. The focus here is to address the pertinent canons of scientific explanation by offering a brief accounting of the procedures employed in this investigation.

The first canon in establishing acceptable evidence requires that the method of gathering data be applied consistently. That is, two or more trained observers regardless of any idiographic characteristic or attribute will code a given observation identically. Thus a coding system must provide the basis for a set of common meanings within a specified conceptual context. It would not be expected that a Behaviorist would agree with an Ego Psychologist on viewing an observation from the perspective of unconscious motivations but were the Behaviorist to accept this perspective the set of descriptors would be employed identically by both psychologists. The descriptors by which observations are categorized must be sufficiently specified that knowledgeable persons would code a given behavior to the same category. To achieve this agreement is not evidence of science but the footing upon which science explanation is construct. That a multitude of people can have agreement on their observations does not establish a scientific credibility to their accord. The point here is that a methodology circumscribes the evidence which it makes available and only as such, in the role of a tool, does it contribute to scientific inquiry.

Category systems for observations are always based in a given conceptual framework. The conflicts between a Behaviorist and an Ego psychologist are with their differing conceptualization of human existence and not in their abilities to code behavior with each other's category systems. A conceptual framework must be sufficiently comprehended as demanded by the scope of any inquiry before an investigator can structure a scientific conjecture.

These two requirements were met for this study. The epigenetic theory set forther by Erik Erikson (1950) served as the conceptual framework and from it a set of specifications were used to construct an observation category system. Reliability and validity of the sytem were established (Boyd, 1961; Davie, 1971; Boyd and Wilson, 1974. White, 1976.)

Scientific inquiry begins with setting forth a testable conjecture. That is, scientific explanation requires as its first step an unequivocal statement that can be tested by asserting the relationship between two or more phenomena thereby denying the existence of other relationships. The principal canon of empirical science is to examine the evidence for the existence of falsifiers; that is to look for an event that the conjecture asserts can not occur.

The conjecture of this study proposed that congruent communications would exist when the contextual, manifest and specification content were identifiable or when the individuals were aware of the differences.

In employing the methodology for coding the case study episode, the following results were obtained: Charles 6-1-A
Sarah 6-1-B
Carol 7-1-C
The first number stands for the contextual psychosocial ego stage and the other notations have been explained previously. There is clear documentation that there was lack of congruency in these verbal interactions and difficulty in communication was observable. Further evidence was sought where there was congruency. A few minutes following the reported episode there was the following exchange: Charles 6-1-A
Mary 6-1-A.
Charles responded: "That is exactly how I feel." This is further corroboration of the conjecture.

The interview and self-report data corroborated that Charles, Sarah and Mary were in Intimacy versus Isolation and Carol was in Generativity versus Stagnation.

The findings warrant an expanded view of the idea that the development of Trust in a small group must be viewed from a life-span perspective. The investigation provided evidence that when the contextual, manifest or specification content were not in correspondence difficulties arose in verbal interactions. The explanation was offered that when individuals were speaking to each other from different ego stage concerns it would be expected that they would experience difficulties in reaching any type of understanding about Trust. A more expanded discussion of the life-span perspective follows.

Some knowledge of the epigenetic theory set forth by Erikson (1950) must be assumed. According to the psychosocial theory of ego development the adult years span three crises, namely, Intimacy versus Isolation, Generativity versus Stagnation, and Ego Integrity versus Despair and Disgust. For an adult to work on Trust may appear to imply a psychosocial regression. There is a regression but it is not diagonally back down through the phase specific steps of ego development but horizontally to that aspect of the ego that contains the residue of previous resolutions. For example, the ego stage of Trust versus Mistrust occurred as a phase-specific crisis during the first years of life. The resolution of the crisis and the re-examination of the resolution of that crisis at each successive ego stage crisis are carried forward. This view of ego stage development can be expressed by means of a diagram as given below.

VI - 1				VI - 6		
Trust versus Mistrust				Intimacy versus Isolation		

An individual in ego stage VI must still deal with the content of Trust and Mistrust and they do so from the orientation of their phase-specific crisis of Intimacy versus Isolation.

The reported case study can be diagrammed as follows:

	I	II	III	IV	V	VI	VII
VII	Carol(C)						Carol
VI	Charles(A) Sarah Mary					Charles Sarah Mary	

Manifest content

Contextual content

The life-span paradigm provides a hierarchy of increasing communication difficulties which are presented in Table 1. A fuller presentation of this line of investigation is presented elsewhere (Boyd, 1981).

Table One
Hierarchy of Increasing Communication Difficulties

	First Person			Second Person		
I	II	III	IV	II	III	VI
1	6	1	A	6	1	A
2	6	1	A	6	1	B
3	6	1	A	7	1	A
4	6	1	A	7	1	B
5	6	1	A	6	2	A
6	6	1	A	6	2	B
7	6	1	A	7	2	A
8	6	1	A	7	2	B

I	Rank order of congruent transactions
II	Contextual ego stage crisis
III	Manifest ego stage concern
IV	Specification of ego stage

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OVERCOMING CULTURE-SPECIFIC LIMITATIONS ON INTERVIEWING

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Interviews as Culture-Specific

In their review of survey research methods in adult education, two British adult educationalists have noted the culture-specific nature of the interview as a "western phenomenon, as rooted in our society as are the mass media, which have, incidentally, shaped the conventions of the interview situation perhaps more than any other single agency" (Pilsworth & Ruddock 1975;135). The culture-specific associations surrounding the term "interview" mean that in everyday discourse the word calls to mind television confrontations in which a detached questioner elicits information from a knowledgeable and articulate subject in a more or less hostile manner. Thus, the term is interchangeable with that of "interrogation", since its only other common usage is in the context of the competitive and anxiety-provoking job "interview".

A problem which particularly besets researchers into informal and non-institutional adult education is that the individuals being studied may have experienced a number of "interviews" in which they have been cast in the role of offender against institutional convention. As Holmes recognised when he came to study the reactions of adult non-readers to literacy broadcast materials ...

> " These are adults who have already undergone numerous formal interviews with authority - employers, employment officials, social security officers, social workers, prison authorities, and so on - which may not have led them to the conclusion that total frankness is the best policy. To play the disinterested researcher may lead to being identified with that world. The result may be an apparently acceptable interview, with answers given to all questions, but that comes no nearer to an understanding of real feelings and perceptions than before one started " (Holmes 1976;152)

Similar doubts concerning appropriate methodologies were faced by this researcher in his study of independent adult learning. In this paper the term independent learning is applied to that learning which occurs in the natural societal setting and which is independent of external instructional direction and institutional accreditation. The adults surveyed had explored an area of interest (such as dog breeding, beekeeping, philately, horticulture or ornithology) for a mean length of 22 years and their resultant expertise had led to them being awarded the acclaim of fellow enthusiasts at national or local level. Their formal education had ceased at the age of 16 and, unlike the members of Tough's samples (Tough 1967, 1968), they were mostly employed in non-professional occupations.

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The empirical findings of the study are reported elsewhere (Brookfield 1980, 1980a, 1980b; 1981) and this paper discusses the techniques employed to overcome the culture-specific limitations on interviewing mentioned earlier.

Contacting Interviewees

The independent learners were mostly contacted by letter in order to ascertain their readiness to participate in the research project. The phrasing and tone of such letters were regarded as being of crucial importance if individuals were to agree to be interviewed. Because of the dangers of alarming potential subjects the initial letters of contact avoided using the word "interview" asking members instead to "talk" or "chat" about their interests and referring to these "conversations" being used for a research project on independent adult learning. The subject was told that his local fame as an expert in his particular field had led to his being brought to the researcher's attention as an example of a successful independent learner and that the purpose of the visit was simply to learn more about the way he had followed an interest over a number of years. No specific substantive areas for discussion were mentioned.

Siting of Interviews

Wherever possible the interviews were conducted in subjects' homes. The reasons for this were twofold; first, the interviewee would regard himself as being on familiar territory and would be less likely to feel intimidated than if he were expected to visit a researcher's office sited, perhaps, in a university or college building. Secondly, there was the opportunity for the researcher to see practical examples of the learning activity. The latter feature meant that the course of an interview could be altered, and interesting lines of enquiry pursued, through reference to particular artefacts. Asking about the other members in a photograph taken at an exhibition or society meeting would lead into a discussion on the use of enthusiasts' clubs and voluntary societies as informal learning networks. Being shown a china collection would reveal the rationale behind the collecting activity, indicating the parameters placed on what constituted a complete collection and saying something about the development of discriminatory capacities through comments about good and bad pieces. As the British sociologist, Zweig, noted ...

> " if one can interview a person in his own surroundings .. so many of the potential questions are answered immediately and truthfully simply by using one's own eyes. One can understand the respondent much better, seeing him in a concrete environment and a concrete situation " (Zweig 1965;254)

Checking Interview Transcripts and Reports

If the subject agreed, the interview was tape recorded and then transcribed. For twelve of the independent learners, however, use of the tape recorder was considered intimidating and in this event the researcher compiled an interview report (usually on the same day as the interview) based on notes made during the encounter and on his own recollection of the conversation.

In either case, the subject was sent a copy of the interview report or transcript and invited to check its accuracy. This chance to see the researcher's record of the encounter was stressed as a condition of sample members agreeing to participate in the project. It was hoped that this would go some way towards removing the association between interview and interrogation and help to establish an open atmosphere characterised by reciprocity. Knowing that there would be no attempt by the researcher to tease out indiscreet revelations which would then be made public would help to build a trust between interviewer and interviewee. Also, by offering the subjects an opportunity to check the accuracy of interview summaries, and to suggest appropriate modifications and additions, the chance of a researcher paraphrasing a remark incorrectly, or misinterpreting an important point, would be considerably reduced.

Interviews as Conversations

In his essay on "The Art and Technique of Interviewing", Zweig elaborated the principles which governed the conduct of his interviews with British manual workers over the preceding decade. He regarded interviewing as "a branch of the large art, the art of conversation" and argued that ...

> " The act of interviewing does not need to sink to the level of mechanicalness. It can be a graceful and joyful act, enjoyed by the two sides and suffered by neither. What is more, my contention is that unless it becomes such an act, it will only fail in its main function. One cannot conduct an interview by bombarding one's victim with a barrage of questions, which is only tiresome and tiring for both sides. The only way is to make an interview an enjoyable social act, both for the interviewer and the respondent, a two-way traffic, so that the respondent feels not a victim but a true partner, a true conversationalist " (Zweig 1965;265)

If the conversations with the independent learners were to follow Zweig's model and be a genuine exchange of experience, a true inter-view, then it was evident that the role of the interviewer must be far removed from that of asking the same questions in the same order and tone of voice. In this situation the interviewer is reduced to an appendage of his methodology, a functionary whose task is rigidly to administer his schedule and record subsequent responses. If, however, the interviewer is to ask people to reveal their perceptions of activities which are of great personal significance to them then he, the interviewer, must be prepared to voice his own enthusiasms, pleasures and anxieties. In the research under discussion this occurred throughout the interviews as, for example, the expression of a genuine admiration for the activities of sample members came quite naturally to the researcher. This was no calculated stratagem designed to put subjects off their guard, but a spontaneous response to encountering repeated evidence of sustained commitment, infectious enthusiasm, and considerable achievement.

Another way in which the interviews took on the character of conversations, of a dialogue between equals characterised by openess and a respect for the other's views, was seen in the frequency with which respondents declared that the encounter had been useful and revealing to them. Through being encouraged to reflect on their activities, to consider the broad features of their learning rather than specific substantive concerns, and to be forced to relay these reflections to an interested layman, the independent learners came away from their interviews with some insights into their own experience. When someone said that he had "just realised" something about his learning through talking about it, or that he had "never thought about it like that before", it indicated that respondent as well as interviewer was finding the conversation to yield stimulating insights.

Asking Questions

Much as the hope was that the interviews would take on the character of conversations, the circumstances occasioning the dialogue could not be forgotten. Thus, were the interviews to become repetitious and tiresome for both participants, it would be necessary to intervene with a direct question so as to alter the course of the conversation. Wherever possible questions were asked relating to specific events, to previous remarks, or to photographs, magazines, and collectors' items at the subjects' homes. Grounding the exploration of a general theme within the context of a specific occurrence would, it was hoped, help the subject to feel on familiar territory. For example, the importance of shows and exhibitions in reinforcing enthusiasm and directing the course of learning efforts would be discussed by commenting on a prominently displayed rosette or certificate and allowing the conversation to develop from that reference. As an illustration, the following extract comes from an interview with a successful angler who earlier that day had participated in a competition ...

> " I've gone to the Avon today, really, geared up to fish the Severn, because that's what I usually fish and that's what I'm geared up to fish. I've gone along with the wrong rod which is too heavy, exerts too much power when I strike, and consequently I've lost fish through it. It's cost me a lot of money and I'm not very pleased about it! Because I didn't think enough about it before I went.
>
> Question : How could you have increased your chances of success then, before you arrived at the river?
>
> By doing your homework. Firstly, you must know what sort of state the river is in, whether it's up, normal level, whether it's rising falling - that's a must. Then you compare results, probably from the last three weeks on the venue. I always read the angling papers each week to find out what weights have been winning matches and what weights of fish have been getting in the prize money. It's the angler who catches the heaviest weight of fish that wins the money. I also get most of the results sent through to me anyway. We do a lot of talking in the local tackle shop. We go in there and say what won the match at Huxley's on the Avon, what won the match at Stourport this week, how did friends get on, what did they do, how did they fish "

Rooting a question in the context of an incident occurring that same day here encouraged the respondent to talk about the general principles regarding the use of relevant knowledge to best advantage and the function of peer groups (in this instance a fishing tackle shop) as information exchanges.

Setting the Research Agenda

When the idea of researching the activities of independent learners first came to mind, a number of preconceptions existed concerning the aspects of independent learning on which the study would concentrate. As the interview program progressed, however, several potentially fruitful avenues of inquiry began to emerge which were in addition to, and separate from, the author's initial preconceptions. On their emergence these features would be noted and followed up in subsequent interviews and if their importance was confirmed they came to occupy a central place in the research scheme.

Since the concern of the research was to investigate subjects' perceptions of their learning through a conversational exchange, it was felt that independent learners should be partially responsible for guiding the course of the conversations and for introducing new items for consideration. This approach to interviewing recalls that adopted by Houle in his classic THE INQUIRING MIND (1961) in which the 22 continuing learners were encouraged to "talk freely and frankly" (Houle 1961;13) and where the author admitted that he had "no conscious hypotheses". His declaration that "themes - such as the significance of stimulators and of enclaves - emerged during the course of reading through the cases" (Houle 1961;14) did, of course, pre-date by several years the notion of emergent conceptualisations as developed by Glaser and Strauss (1967).

Conclusion

Interviews are a particularly appropriate tool of investigation for those inquiries which have an idiographic rather than a nomothetic rationale; that is, which are concerned with depicting the highly specific nature of individual experience rather than advancing broad generalisations. Such inquiries are located within the phenomenological tradition and rest on the assumption that one person's formulation of a problem, or presentation of a dilemma, can encapsulate a wider reality. Thus, "the understanding of an individual caught up in a specific situation is often the key to the better understanding of the generic" (Zweig 1965;x) and "qualitative researchers can study certain general social processes in any single setting or through any single subject" (Bogdan and Taylor 1975;12).

This paper has argued that the idiographic depiction of independent learners' perceptions was facilitated by the researcher's attempts to apply Zweig's counsel concerning the conduct of interviews. The open ended interview style described herein, in which the responsibility for defining central substantive concerns rests with the subject as well as the researcher, is particularly suited to inquiries in which respondents are intimidated by the culture-specific conventions governing structured interviews. Thus, studies of adult illiterates, working class recreational clubs, community groups, and the disadvantaged, which have as their purpose the investigation of subjects' perceptions of their experiences, will yield more fruitful insights if the interviews involved become, in Zweig's words, enjoyable social acts.

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A THREE-DIMENSIONAL EVALUATION MODEL FOR EVALUATING NON-TRADITIONAL MASTER'S DEGREE PROGRAMS

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The purpose of this paper is to outline a model for evaluating a non-traditional master's degree program. The evaluation model includes a number of components and is formative as well as summative in nature. The model is designed to be generalizable and can be adapted to other settings and other types of educational programs.

The model is built on the following premises:

1. The individuals involved in the program must have a stake in the model and be actively involved in the process.
2. The evaluation model must be continuous, not one-shot. There needs to be repeated assessments of the dimensions evaluated.
3. The individuals involved can identify and prioritize the goals and objectives of the program.
4. A variety of evaluation theories and data collection methodologies must be merged to provide the best information possible.

DIMENSIONS OF THE MODEL

The model is three-dimensional in nature. The three dimensions are groups, time, and processes. The specific dimensions within each of the primary categories are illustrated in Figure 1. The grid format helps to provide structure and form to the evaluation.

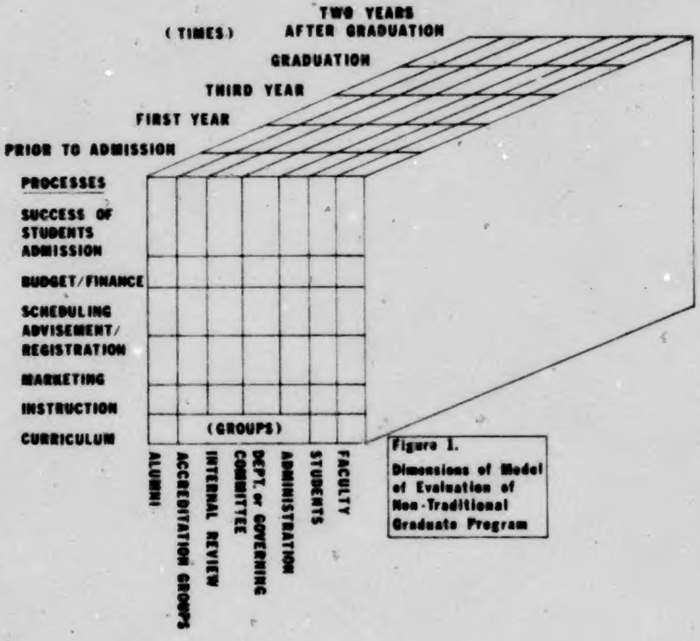
(TIMES)
TWO YEARS AFTER GRADUATION
GRADUATION
THIRD YEAR
FIRST YEAR
PRIOR TO ADMISSION
PROCESSES
SUCCESS OF STUDENTS
ADMISSION
BUDGET/FINANCE
SCHEDULING
ADVISEMENT/ REGISTRATION
MARKETING
INSTRUCTION
CURRICULUM
(GROUPS)
ALUMNI
ACCREDITATION GROUPS
INTERNAL REVIEW
COMMITTEE
DEPT. or GOVERNING
ADMINISTRATION
STUDENTS
FACULTY

Figure 1.
Dimensions of Model of Evaluation of Non-Traditional Graduate Program

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For an example of a formative evaluation process, lets look at marketing. Upon first registration, students would be asked how they heard of the program, the adequacy of the brochure and catalog descriptions and other publicity received. There could be a random sample of faculty contacted to find out whether they knew of the program or not, had received the publicity, had read the information, had utilized the information in the advisement, etc. The administrators could likewise be surveyed as well as a random sample of alumni. For internal or external accreditation of the program, files would be kept of the publicity and publications relative to the program as well as the results of the forementioned surveys.

Views sometimes change as one participates in the program either as a student, advisory committee member, faculty member or administrator. Certain questions dealing with marketing could be included in questionnaire or interview schedules administered at the end of the first year, third year, etc.

Since students are admitted each semester, there could be continuous evaluation of the marketing of the program by different individuals at different periods of time so changes in marketing strategies could be assessed over time. This would also be true of the other targeted groups.

Summative evaluation of the program would involve both analysis of the data collected in the formative phases of evaluation and a systematic follow-up of the graduates at scheduled intervals after graduation. The attitudes, perceptions and values of the graduates of the programs would be measured. The type of job or occupation entered, types of activities, hobbies or interests developed as a result of the program would also be identified. Some common items would be included on both the formative and summative instruments developed in order to make comparisons between those in the program and those who have completed the program. Students would also be assessed by the faculty involved in the program as well as possibly internal and external reviewers or accreditors. For example, students' products or theses could be evaluated by external reviewers (Anderson, et al., 1978).

These are only a few examples of how the cells of the model can be filled utilizing the premises initially stated in the paper. The specific goals and objectives may vary from setting to setting; however, the model does present a framework for systematic and continuous evaluation of a program allowing for different types of evaluation procedures.

PROCESS FOR CONDUCTING THE EVALUATION

The process for conducting the evaluation contains three stages: 1) the preoperational stage; 2) the implementation stage; and 3) the post operational stage.

PREOPERATIONAL STAGE

Step 1. The goals and objectives of the program are identified in step 1. The stated goals and objectives from the catalog, brochures, original program documents presented to governing boards, course outlines and any other appropriate documents are listed on work sheets.

Step 2. The goals and objectives identified in the first step are reviewed by the administrators, faculty and students involved in the program. Other dimensions and questions that the groups feel should be a part of the evaluation are added to the work sheet along with any goals and objectives not previously identified. The groups should decide what types of information they would like to have on the functioning of the program which would help them to govern, teach or learn more effectively in the program. The group needs to review the final list and prioritize the types of information wanted from the evaluation. (Plakos, Plakos & Babcock, 1977).

Step 3. Reviews of literature on the dimensions identified are conducted. Previous studies can be located and appropriate techniques and instruments identified. Other schools having similar programs can be contacted and evaluation strategies discussed.

Step 4. From the list of goals and objectives identified by the review committee and the information gained through reading and communication with other professionals, a plan for the evaluation of specific dimensions can be designed.

Step 5. A tryout on the instruments and techniques is conducted. Factors such as time needed for administration, ease of responding, ambiguity of questions, and adequateness of directions can be checked.

Step 6. From the feedback in step five, the committee can review the evaluation plan and establish the final working model or plan for evaluation.

IMPLEMENTATION STAGE

Step 1 Collection of Data. The plan should be followed and indiviudals complete assigned tasks. Those involved in data collection should keep a journal which would contain a record of the events they were involved in, their impressions, and record of problems encountered (Hettich, 1980).

Step 2 Analysis and Dissemination of Data. Once the data has been analyzed, the model has been designed so that the data can both be used immediately and as cumulative material over time. The Evaluation Committee should identify pertinent information to be disseminated to target groups (eg. Admissions Committee, Advisement Group) and decide which mode or medium and timing would be most appropriate.

Step 3 Evaluation of Evaluation Model. There is need periodically to update the model and goals of evaluations (Foster and Easton, 1980). Formative evaluation can be used to evaluate the evaluation model. Preliminary results might indicate such items as additional information is needed and/or the targeted groups utilizing the results might want other types of information.

POSTOPERATIONAL PHASE

Step 1 Cross Validation of Model. The model can be tried on other new programs within the institution. Systematic evaluation of other new programs might not appear to be as overwhelming to other groups when an existing model is in place and has been field tested.

Step 2 Reporting to Professionals in Field There is a paucity of reports available on evaluation models, procedures, instrumentation in many areas of higher education and especially in evaluating non-traditional and innovative programs. In the master plan, there should be objectives related to the staff personnel presenting papers at professional meetings and writing articles for journals on phases of the model.

UTILIZATION OF THE MODEL: EVALUATION OF THE MASTER'S OF LIBERAL STUDIES PROGRAM AT THE UNIVERSITY OF MAINE AT ORONO

The model is being used at the University of Maine at Orono to evaluate the Master of Arts in Liberal Studies Program (MLS). The MLS Program offers to mature students opportunities for full- or part-time interdisciplinary graduate work.

The preoperational stage of the evaluation process has been completed. The steps that were followed are outlined below.

Step 1. The goals and the objectives of the program were identified using the stated goals and objectives from the original planning document, the brochure, minutes of planning meetings, course outlines and interviews with key administrators and faculty.

Step 2. The goals and objectives were then reviewed by students, faculty, all MLS committee members, and administrators involved with the program. Seven major goals of the program were agreed to by all parties. It was decided in the first year of the evaluation process that four of the goals would be formally studied. These four goals are as follows:

1. To provide a high quality alternative to traditional graduate programs by integrating the specialized knowledge provided by individual disciplines.
2. To offer an opportunity for interdisciplinary graduate work in the liberal studies to mature adult students on either a part or full time basis.
3. To provide an opportunity to students for graduate work in areas of study not presently available at the departmental level.
4. To provide a program that meets the individual needs of each candidate in the program. A candidate may enter the program based on a need for further study to cope with the work world, as a way to improve their own liberal learning, or for a combination of both reasons.

The specific dimensions chosen to be studied that address these goals include Admission, Curriculum, Advisement.

Step 3. A review of literature was conducted on each dimension to be studied. In addition all schools that are members of the Association of Graduate Liberal Studies Programs were contacted to obtain information about their admissions policy and procedure, curriculum format, and advisement system.

Step 4. A specific evaluation plan for the first year was then developed. An outline of the process to be used relating to the admissions dimension is given at the conclusion of this paper (Exhibit 1). In addition, a draft of a Master five year evaluation plan has also been completed.

Step 5. A review of the plan, techniques to be used and instruments to be administered to students is presently being conducted by the Coordinator of the program and members of the Policy Advisory Committee.

SUMMARY

The purpose of this paper is to present a model for evaluating non-traditional masters' degree programs. The model is three-dimensional in nature and includes both formative and summative components. A three-stage process for conducting the evaluation is also outlined. The paper was concluded with a description of how the model has been utilized in evaluating a specific program, the Master of Liberal Studies Program at University of Maine at Orono.

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EXHIBIT 1: Outline of How One Process Dimension of the Model Admissions Will be Evaluated

Groups	Areas to Study	Procedures	Time Line
Students	1) Initial Admissions Data Goal Statement GPA GRE scores interview data	1) Review and Analysis of Admissions Data	1) Complete once per year on all admitted candidates -- April
	2) Feedback on admissions criteria and process	2) Administer instrument via interview	2) Complete once per year on all candidates admitted -- April
	3) Performance in program GPA Ability to plan and carry out individualized program Goals/Objectives for Program	3) Administer instrument via interview Review and analysis of student records	3) Complete end of first and third year of study and at graduation
	4) Successful completion of Program	4) Administer instrument Review & Analysis of student's program	4) Complete at end of student's program
Admissions Committee	1) Admissions policy and practice of other MLS Programs	1) Collect & review materials on admissions policy, procedures, etc. from members of Association of Graduate Liberal Studies Programs	1) Every 3 to 5 years start process Feb. 1981
	2) Admissions policy, criteria & practice Review feedback from students on process and criteria	2) Review analysis of data of individual student admits	2) Complete once per year -- May
	3) Performance & successful completion of students in the program in relationship to admissions data	3) Review analysis of student records & data compiled from interview with students	3) Complete once per year -- May
Policy Advisory Committee	1) Admissions policy, criteria, & practice	1) Review recommendations of Admissions Committee	1) Complete once per year (as needed) -- May
	2) Performance & successful completion of students in program in relationship to admissions data	2) Review analysis concerning student records & data compiled from interview with students	2) Complete once per year (as needed) -- May
University Administration	1) Performance & successful completion of students in program in relationship to admissions data	1) Review analysis concerning student records & data compiled from interview with students	1) Formal - every 3 to 5 years Informal - as needed

DETECTING THE LINKS FROM A CONTINUING PROFESSIONAL EDUCATION PROGRAM TO IMPROVED PROFESSIONAL PRACTICE

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INTRODUCTION

Improved professional practice is one goal of continuing professional education (CPE) programs. Yet rarely do program evaluations show that improved practice has resulted from these programs. Granted, many CPE programs are so short that a significant change in professional practice might not be realistic from the program. In such cases an attempt to determine impact could be more expensive than the program itself. Some attempts have been made, however, to determine impact (1)(2)(4)(6). Yet these studies often fail to show that a significant change in professional practice has resulted from the program.

Some have argued that many impact studies expect too much too soon (5)(7). If studies assume a clear cause-and-effect relationship exists between participation in a CPE program and improved professional practice, much of the impact could be missed. The professional may need to make several small changes before the clearly significant changes are apparent. This prerequisite may be particularly true for programs in which presentation of information is the predominant activity. In these cases the professional may need to modify the information presented into a form which fits his or her professional situation. This modification may take months and may require support "back home" to continue the process of change. Only then would significant changes in professional practice likely be detected by an impact study.

This paper describes an impact study which recognized the importance of small changes made over a period of time. The study examined the effects of a Nurse Executive Development Program (NEDP). This CPE program is designed to increase management knowledge and skills of nurse executives in health care institutions. It is co-sponsored by the University of Illinois College of Nursing and the American Hospital Association Division of Nursing.

The NEDP is 18 months long and consists of five components. Three residential sessions of twelve, two and three days each are held at the beginning, middle, and end of the program. Two interim seminars of two days each on special topics are sandwiched between the three residential sessions. Participants complete ten independent study modules on management related subjects between the first and second residential sessions. All participants are assigned a preceptor near their home with whom they meet approximately monthly. In addition participants may consult with faculty from the College of Nursing by telephone. During the first half of the program participants concentrate on completing the independent study modules. During the second half they design a nursing management development program for use in their respective health-care institutions.

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METHODOLOGY

The impact study design for this program required answering two major questions. First, what effects of the program should be documented? Second, given the constraints, how should these effects be documented? This section discusses these two questions. Later sections present some preliminary results to date and discuss some conclusions and implications of the study.

What Program Effects Should be Documented?

Clearly, any number of program effects could be examined. Very early the researchers decided to investigate effects both on the individual participant and on that participant's health-care institution. Kirkpatrick's four-component evaluation model ([illegible] helped to establish these two foci. Two components, participant reactions to the program and participant learning that occurred, guided the formative aspect of the evaluation and are not included in this discussion of impact. The remaining two components, what Kirkpatrick calls behavior and results, correspond to individual and institutional effects respectively.

The decision to consider both individual and institutional effects was only a beginning. More specifically, changes in both management-related knowledge and skills are included as part of individual effects. Determining the institutional effects to consider was more difficult. Numerous effects on complex health-care institution were possible. Several alternative strategies were considered for selecting institutional effects to examine. One alternative was to rely on the program objectives. The weaknesses in such a Tylerean approach are well-known. In addition to these weaknesses the researchers concluded the stated NEDP objectives were not sufficiently credible. They were written in very general terms and did not always correspond to the planned program content. Whether the program itself could result in the outcomes promised by the objectives was unclear.

A second strategy considered was to use standards of organizational effectiveness against which to judge the program's impact on the health-care institution. This option would involve choosing one set of standards from the many offered in organization literature. After an initial review of this literature, this approach was also eliminated. More impact might be missed than found if this option was chosen. Some attempts had been made in this literature to describe effective health-care institutions. Yet these standards had been developed independent of the Nurse Executive Development Program. To demand that the NEDP achieve these standards seemed unfair to the program, since the program was not designed to achieve them.

Instead the strategy adopted was to determine institutional effects compatable with the intent of the program. This strategy involved identifying institutional effects which were most likely to result from the program. The researchers concluded that the "meat" of the curriculum was contained in the ten independent study modules. They further concluded the application exercises for the written assignments in these modules suggested the organizational areas most likely to be influenced by the program.

How Should the Study Be Conducted to Examine These Program Effects?

The answer to this question of how required a series of decisions about data collection procedures. Before discussing these decisions, several constraints on the study should be noted. First, limited financial and personnel resources meant the study had to be relatively inexpensive. Second, data collection must not be so extensive or obtrusive that it distract the participants and interfere with their learning. Third, data collection also must not intrude too extensively on the health-care institution. Too much intrusion could undermine the program's impact on the organization. These constraints influenced the decisions made about data collection procedures.

A variety of sources were identified from which to collect data. Clearly the NEDP participant would be an important first source for both effects on the individual and on the institution. Since self-report data has limitations, however, these data were supplemented by reports from the participant's immediate superior, colleagues, and subordinates. An additional data source was the preceptors. Selected documents were also considered as a possible data source. These documents would provide an objective check on any claims made by individuals.

Using a modified time-series design, data were collected at five different times: (1) at the beginning of the program, (2) five months later, (3) at the mid-point residential session ten months into the program, (4) fourteen months into the program, and (5) at the end of the program. In addition follow-up data collection is anticipated six and twelve months after completion of the program.

How to collect data was more easily determined for individual impact than for institutional impact. Participants completed a self-report instrument at the initial, middle, and final residential sessions. This instrument asked them to judge the extent of their management knowledge and skills in several areas of nursing management. In addition to these quantitative data semi-structured telephone interviews were conducted with the participants five months into the program. Participants were asked about qualitative changes they had noticed in the way they were doing their work or new insights they had about their work. Preceptors were also interviewed by telephone at this time to determine if they had noticed changes in the participants. Qualitative data were also gathered through informal conversations with participants during the mid-point residential session.

Collecting data for institutional impact was a more difficult task. A combination of a mailed survey and follow-up telephone interviews was chosen. This combination would yield the best data, given the constraints on the study mentioned above. The purpose of the survey was not to measure the change that had occurred in the health-care institutions, but first to detect where change might be occurring. The telephone interviews would then be used to determine the extent of organizational change that was resulting from the program.

After several validation steps, five copies of the final survey were mailed to all participants in NEDP 14 months into the program. One copy was for the participant to complete. The remaining four were to be distributed to the immediate superior, a typical sub-ordinate, and two others chosen by the participant who would have additional insights into the health care institution. Response rate has been 68%. Plans are to administer the survey again six to twelve months following completion of the program.

PRELIMINARY FINDINGS

The first 18-month cycle of NEDP was just completed in March 1981. Of the 28 nurses who began the program, 25 completed it. Since data collected at the end of the program have not been analyzed, only the preliminary findings can be reported. These findings suggest several hypotheses which can be investigated further during future cycles of the program.

The preliminary results suggest a pattern to the way changes in professional practice might result from continuing professional education programs. Early in the program participants reported increased knowledge and confidence together with new perspectives on their work. Building on this increased knowledge, the participants then developed or improved their problem-solving and analytical skills. The increased confidence and new perspectives apparently influenced some participants to expand their roles in the organization. Using their improved analytical skills and expanded professional roles, the participants then tended to work toward changes in the organization. This section discusses these findings in more detail.

Increased Knowledge

Increased knowledge of management areas was reported very early in the program and continued to be reported throughout. During the initial residential session at least 75% of the participants claimed increased knowledge of areas such as trends in hospital costs, cost-containment approaches, administrative procedures, and nursing research methods. When interviewed by telephone five months later and again during the mid-point residential session, they continued to report increased knowledge due to their module work and preceptor meetings. Two administrations of the individual impact survey yielded similar results. For example, significant statistical differences ($p<.01$) were detected between the beginning and mid-point of the program for three management areas: (1) budget administration and control, (2) nursing care delivery systems, and (3) personnel administration functions.

Increased Confidence

Five months into the program increased self-confidence was reported. It appeared to be the result both of the knowledge gained and from some managerial experimentation back on the job. Referring to her colleagues, one participant said, "We always knew we should talk to each other, especially about managerial issues. Now we have the nomenclature to do it and enough experiences in doing it to know we are able to do it." One hospital's chief executive officer (CEO) later described the Director of Nursing as more self-assured.

New Perspectives on Work

Early in the program participants were asked whether they had any new perspectives on their work. Thirteen reported they were more aware of how their own institution functions. For example, one person said, "I find myself putting names to things that I had been doing before but did not know how to refer to." Two interesting themes emerged from this question about new perspectives. First, participants became more aware of the normal range of problems faced by nursing service administration. Second, they realized the value of reflecting on their own management experience. One participant's comment illustrates both of these themes: "We are doing better than I thought on our implementation of a patient classification system. I had thought we were not making much progress, but after talking with other participants I think we are doing well. Going slow is really OK after all."

Improved Problem-Solving and Analytical Skills

During the five-month telephone interviews, nine participants reported they were doing more analysis of situations before making decisions. They were now making fewer snap decisions. Some mentioned they projected the results of alternatives before deciding. As one said, "I think things out differently now. I try to generate alternatives instead of acting or suggesting the first idea that comes to mind." One colleague said of a participant,"The program has assisted her in looking at specific problems objectively and with a greater amount of understanding."

Expanded Roles

All these changes in the individual participants apparently contributed to expanded roles in their respective institutions. During the telephone interviews six participants claimed to be spending more time and energy developing subordinates or changing their job responsibilities. One had already started an inservice program. During these same interviews six participants mentioned they were expressing their own opinions more frequently and with more confidence.

More than one-third of the participants said the program had helped them increase their professional influence. The areas most affected were patient care policy, modifications of organizational structures, and personnel management. For example one participant reported: Through my work in the modules I have become known as a very informed person.... My knowledge of the organizational literature is impressing (the senior) administrators. I am ahead of the changes... because of the studies. I am being pointed to as a model of a manager." Another stated, "The new hospital philosophy development project has tied me into a lot of long-range planning meetings. I now have input into salary decisions, and I am now part of the management team." Still another participant claimed that when a "new management team formed around the new chief executive officer (CEO), I was asked to develop budget and goals. Because of the work on the modules, I was able to answer the request immediately. This first response to the new CEO showed him that he was dealing with an administrator and not just a nurse."

Impact on the Health-Care Institution

All 28 areas of nursing service administration listed on the mailed survey were identified as receiving greater emphasis in the health care institution. For all these indications of increased activity, 38% said the primary "cause" was the Nurse Executive Development Program. The five areas of increased emphasis most frequently attributed to NEDP were: (1) redefinition of a nursing philosophy (noted by 60% of all respondents, (2) improved effectiveness of nursing service committees (58%), (3) increased usage of factual information in decision making (58%), (4) more efforts to measure the quality of nursing care (53%), (5) redefinition of nursing job descriptions (52%). Qualitative data collected yielded similar evidence. One participant stated during the midpoint residential session, "When I started the program, my department of nursing had no plan and no philospohy. Now it does, and it has caused the hospital to develop its own philosophy too." Later a non-participant mentioned some of the changes evident in the organization due to NEDP: "inservice business meetings, project team meetings, and an increase in staff participation in departmental projects."

CONCLUSIONS AND IMPLICATIONS

The preliminary findings suggest the NEDP is influencing change in several areas. They further suggest a pattern of change occurring over time. Some changes may seem small, but they provide an important foundation for making other changes. The evidence suggests this program is leading to more holistic change than simply learning a new clinical technique and applying it to patient care. Instead the program influences the individual to adopt an expanded role in the organization and then use that role to accomplish change.

The study does have weaknesses, however, due to insufficient lead time to design it. Unfortunately, some decisions about the design had to be made after the program's first cycle had begun. As a result, baseline data are limited. Participants did assess the extend of their management-related knowledge and skills, but this information was not gathered from others in the health-care institution. Nor was the organizational impact survey administered at the beginning of the program. In addition some technical flaws in the individual knowledge and skills instrument were corrected for the second administration midway through the program. These necessary corrections limit possible comparisions between the first and second administrations. A final methodological weakness is that a control group could not be used throughout the entire study.

The evidence from this study suggests at least two implications for continuing professional education programs. First, length of a program is important. A CPE program occurring over an extended period of time can be a significant influence for change. By contrast the impact of a short seminar may be quite limited. Second, opportunities to continue learning back in the home environment are important. The apparent success of the NEDP is largely due to the independent study modules and the monthly preceptor meetings.

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RELATIONSHIPS BETWEEN MOTIVATIONAL ORIENTATIONS AND PARTICIPANT SATISFACTION WITH INSTRUCTIONAL ENVIRONMENTS: A MULTIVARIATE PERSPECTIVE

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INTRODUCTION

Previous motivational orientation research has focused on variables that "predict" participation. Researchers have assumed that knowledge about participants' motivational orientations may lead to effective control or tailoring of educational programs and environments to produce a "good fit" with their (the learners') expectations. This notion of "good fit" further assumes that participants would be more satisfied with this condition than with "poor fit" and hence less likely to drop out and more likely to participate again in the future. Few studies have examined the impact of motivational orientations on the behaviour or perceptions of participants in instructional environments.

Two different approaches have characterized the research on motivation for participation in adult education. The bulk of research focuses on reasons for participation which existed prior to actual participation. In addition to producing valid and reliable factors, this line of research characteristically investigates psychological and environmental forces associated with motivational orientations (Boshier, 1980; Morstain and Smart, 1974).

The second, and less developed line of research concerns relationships between behaviours arising as a consequence of motivational factors which impel people to participate. Examples of this type of research are Potvin's (1979) study and Boshier's (1973; 1977) model of forces which impel dropout and persistance. Boshier did not empirically investigate the impact of motivational orientations, or their psychological correlates, on participants' feelings of "goodness of fit" or overall satisfaction with the courses for which they enrolled. Nevertheless, the notion that "course" outcomes, such as satisfaction, are determined in part by participants' motivational orientations was implied and helped shape the problem investigated in this study.

Boshier's model of dropout implied that participants interact with personological and non-personological aspects of the environment. Support for this notion comes from Verner's (1962) classification of methods and techniques, which refer to person/person interactions (e.g. participant/other participant and participant/instructor), and devices, which refer to person/thing interactions. Knowles (1970) also referred to person/thing interactions in the learning environment, proposing that practitioners establish climates conducive to adult learning. Environmental psychologists such as Little (1976) maintain that individuals construe or perceive environments differently and have a generalized disposition to be oriented towards persons or things. Thus, in formulating the research question, it was felt that understanding would be enhanced by making a distinction between "person" and "thing" elements of instructional environments, rather than correlating motivational orientations with "general" satisfaction.

With regard to the foregoing, the problem investigated in the present study concerned the nature of relationships between initial motivational orientations and subsequent participant satisfaction with five aspects of instructional environments--three "person" related aspects (Other Adult Education Students, Myself, My Instructor) and two "thing" related aspects (Course Content, Course Setting). The problem was investigated by using Boshier's (1977) Education Participation Scale (EPS) to measure "motives" and the Personality and Educational Environment Scales (PEES) to measure participant satisfaction (Boshier, 1971).

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Instrumentation

The EPS was chosen because it has been shown to be factorially stable over time and place, factorially pure, economical and free of passenger items (Boshier, 1976). It has also been shown to be reliable (Boshier, 1971; Haag, 1976; Morstain and Smart, 1974) and valid (Morstain and Smart, 1974; Haag, 1976). The EPS has now been used in more than 40 studies and, in view of space constraints, does not need further description here. It consists of 40 items cast on a four-point Likert (No influence...Much influence) scale.

The second major variable, participant "satisfaction", required the use of an instrument sensitive to satisfaction or dissatisfaction evoked by a variety of instructors, course contents, settings and suchlike. The instrument also had to be reasonably unobtrusive, since it was administered at the end of courses. The PEES appeared to be suitable as it had a known factor structure and consists of a flexible, but psychometrically sound set of Semantic Differential concepts and fifteen scales capable of eliciting a large number of responses in a short time.

In view of the need to distinguish between "person" and "thing" dimensions of instructional environments, the number of PEES concepts was expanded to include "Course Content" and "Course Setting" in addition to the three existing personological concepts. The same fifteen scales employed by Boshier (1971) were used to rate the three original (see Table 1) and two additional concepts. During the development of the modified PEES a factor analysis was performed on data derived from ratings of each concept. The three orthogonally rotated factors which emerged strongly resembled Boshier's (1971) three factors. The first, Sociability, contained scales concerned with the outgoing warmth of persons and things. The second factor, Intellectual Potency, contained scales concerned with the success of persons and things in the adult education situation. The third factor, Conventionality, was a measure of conservatism. The three factors accounted for a minimum of 57 percent and a maximum of 66 percent of the variance in ratings of each of the five environmental concepts. Reliability estimates employing test retest and internal consistency (coefficient alpha) procedures showed that all scales and factors were reliable.

METHOD

Subjects were 222 participants (151 women; 51 men) enrolled in British Columbia adult education programs. Due to the nature of the study, instruments were administered on two separate occasions in each course, once in the opening few sessions and again in the closing sessions. On the first occasion, subjects completed a questionnaire eliciting information concerning sex, age, years of formal, part and full-time education, occupation, personal and family income. As well, they completed the Education Participation Scale. On the second occasion, respondents completed the PEES. All but one of the classes agreed on both occasions to complete the instruments immediately. Stamped, addressed envelopes were given to one class and the few participants in other classes unable to complete the instruments within approximately fifteen minutes.

RESULTS

The problem investigated concerned the nature of relationships between participant motivational orientations and perceived "satisfaction" with three "persons" and two "things" in the adult education environment. Preliminary analysis showed that many of the variables employed were intercorrelated; thus results concern the characteristics of respondents and the outcomes associated with a series of bi- and multivariate analyses.

Characteristics of Respondents

The 222 respondents were enrolled in largely non-credit courses organized by four lower mainland (B.C.) adult education agencies. Of the 222 respondents, 121 (54.5 percent) were in non-credit general interest courses at Vancouver Community College--Langara Campus; 58 (26.1 percent) were in non-credit general interest courses at the White Rock Elementary Community School; 26 (11.7 percent) were in a U.B.C. non-credit course on personal finances and investment; the remaining 17 (7.7 percent) were in credit grade eleven and twelve equivalency courses.

Of the 222 respondents, 77 percent were women and 23 percent were men. Their average age was 37.8 years (S.D. = 15.36). Participants reported an average of 11.7 (S.D. = 1.31) years of formal schooling; 2.2 years (S.D. = 2.08) of full-time post-secondary education; 1.9 years (S.D. = 4.45) of part-time post-secondary education. Of the total, 156 respondents (70.3 percent) said they were employed; 63 (28.4 percent) said they were unemployed. The mean Blishen (1976) score was 51.99. The mean personal income reported was $15,322 (S.D. = $9,006). The mean family income reported was $31,780 (S.D. = $13,968).

Predicting Participant Satisfaction

Prior to performing bi- and multivariate analyses of the data, it was necessary to calculate EPS and PEES factor scores for each subject. EPS factor scores were derived by summing over items that load on Boshier's (1977) standard six-factor solution (Professional Advancement, Social Welfare, Escape/Stimulation, Social Contact, Cognitive Interest, and External Expectations). PEES factor scores were derived by summing responses for items that had high loadings on Sociability, Intellectual Potency, and Conventionality. Three PEES factor scores were generated for each concept, making a total of fifteen PEES factor scores.

Out of 90 intercorrelations between PEES and EPS factor scores, only nine were statistically significant. The most strongly associated variables were the Intellectual Potency (of the Course Content) and EPS Social Welfare ($r = -.22$, $p < .01$), Escape/Stimulation ($r = -.22$, $p < .01$), and Cognitive Interest ($r = -.20$, $p < .01$). There was one significant correlation between Professional Advancement and one PEES factor score; Social Welfare had one significant association with a PEES factor; Escape/Stimulation was significantly correlated with three; Social Contact with one PEES score; Cognitive Interest with one; External Expectations was significantly correlated with two PEES scores.

Examination of a larger matrix of intercorrelations which included socio-economic and demographic variables suggested that some of the EPS variables were more weakly associated with some aspects of satisfaction than socio-demographic variables like "age." In view of the known associations (see Boshier, 1977; Boshier and Baker, 1979; Morstain and Smart, 1974) between EPS and socio-demographic variables, it was thus decided to perform regression analyses where PEES "satisfaction" scores were dependent and EPS and socio-demographic variables were independent.

Multiple regression analysis was thus performed on the three "satisfaction" factors (i.e. factor scores for each of the five PEES concepts) to determine which combinations of the fifteen predictor variables were the best predictors. For a variable to enter an equation it had to explain at least one percent of the variance. Table 1 shows the "final" multiple R's that resulted from equations "predicting" the fifteen types of "satisfaction." It can be seen that combinations of EPS and socio-demographic variables failed to predict much variance in, for example, the perceived "sociability" of "myself." But, of the fifteen equations, nine ended with a multiple R of .25 or more.

TABLE 1

Summary of Multiple R's for
Fifteen Regression Equations

	Instructional Environment Concepts				
	"Person" Concepts			"Thing" Concepts	
Satisfaction Factors	I Other Adult Education Students	II Myself	III My Instructor	IV Course Content	V Course Setting
Sociability	.20	.06	.21	*.27	*.35
Intellectual Potency	*.25	.17	.20	*.35	*.39
Conventionality	.18	*.35	*.32	*.27	*.26

* indicates $R \geq .25$ where R^2 change $\gtrsim 1$.

In general, socio-economic and demographic variables accounted for a greater proportion of explained variability in participant satisfaction than EPS factors. Age was an important predictor and accounted for a significant proportion of the explained variability in participant satisfaction with the "sociability" (R = .16) and "intellectual potency" (R = .28) of the course content, and participants' perceptions of "conventionality" in themselves (R = .23), the instructor (R = .26), and course content (R = .14). It appeared that older participants tended to be more satisfied with those aspects of the instructional environment, and perceived greater "conventionality" than younger participants. Family income was another important predictor, accounting for a substantial proportion of the explained variability in satisfaction with "sociability" (R = .26) and "intellectual potency" (R = .23) of course setting. The higher the family income, the less satisfied participants were and the less "conventionality" they attributed to their course setting.

Escape/Stimulation accounted for a substantial proportion of explained variability in satisfaction with "intellectual potency" in course setting (R = .31) and other adult education students (R = .17), and was an important predictor in the equation on course setting (beta = -.23). The higher the scores on Escape/Stimulation, the more satisfied the respondents were with the "intellectual potency" in setting and others. External Expectations was a relatively important predictor (beta = -.20) of participant perceptions of their own "conventionality" and that of their instructors (beta = -.17). The higher the scores on External Expectations, the more "conventionality" they attributed to themselves and their instructors. Social Welfare was an important predictor (beta = -.17) of satisfaction with the "intellectual potency" of course content. Participants with higher scores on the EPS factor were more satisfied than those with low scores.

Overall, socio-economic and demographic variables entered equations (prior to "cut-off") twice as often as EPS factors. This was true for "person" and "thing" concepts. Perhaps the most significant result was the fact all six equations predicting "things" (content, setting) in the instructional environment yielded multiple R's greater than .25. In contrast, only three out of the nine "person" equations reached this level. In this regard it must be remembered that the PEES was administered at the end of courses, at a time when syntality should have developed within class groups; participants were apparently unwilling to "allow" their psychological states (flowing from their socio-economic and demographic or motivational characteristics) to influence perceptions of other people in the environment. "Course content" and "setting" were apparently more "neutral" targets and thus more strongly associated with participant characteristics than "persons" in the environment. This result has implications for theorizing in this area.

The other dominant result concerns the fact only small amounts of "satisfaction" variance were explained by the variables employed. Although nine of the multiple R's were greater than .25 the combination of variables entering the equations do not account for much participant satisfaction.

DISCUSSION

In some respects, the fact motivational orientations failed to account for large amounts of participant satisfaction is a heartening result for adult education practitioners but challenges fundamental beliefs. Adult educators appear to believe that programs and environments tailored to the needs, motives, and expectations of learners will result in higher levels of participant satisfaction than those involving minimal consultation between learners and instructors. The present study suggests that participant satisfaction is largely independent of initial motives that impelled those persons to participate. Motivational orientations represent only a small fragment of adult "characteristics." Nevertheless, they have occupied considerable research attention and appear to be crucial to the program planning process. Their minimal impact on participant satisfaction, if confirmed in subsequent research, suggests that the sources of variance in satisfaction lie elsewhere--such as in other internal or, more probably, external variables. It may be, for example, that good instruction is simply good instruction and "adult" characteristics have little to do with it.

If, as this study appears to suggest, satisfaction is not significantly associated with "internal" participant variables (of which motivational orientations is one of the more crucial), then other sources of variance need to be considered. Participants are known to become dissatisfied with uncomfortable furniture, adverse weather, mindless bureaucratic requirements and so on. But these variables probably have minimal effects compared to those associated with the quality of instruction and the characteristics of the instructor. As Boshier (1980) suggests, satisfaction probably stems from an interaction of participant, instructor, and course content variables. In this transaction, variables under instructor control are crucial. Moreover, almost any participant, regardless of "motivation" or other psychological states, will be satisfied with high-quality instruction. Thus, future research concerning participant satisfaction might focus on instructor behaviour and educational environments.

In this regard it is necessary to reinforce Verner's (1962) distinction between program planning and instruction, which appears indispensable to motivational orientation research. Motivational orientations appear to be central to program planning but, if this study is a guide, are largely irrelevant to instruction. Further work on the "consequents" of orientations will clarify the matter.

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THE THEORY OF RELEVANCE: DETERMINING COMPETENT PERFORMANCE IN ADULT EDUCATION

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As an alternative to the prevailing competency-based systems in adult education which are adaptations of recent curricula developments in the schools and typify a behavioristic orientation, this study presents the outline of a theory of action. From this perspective, competence is realized as an embodiment of human action (performance) itself rather than as the summation of an arbitrary number of deterministic 'competency' statements.

In this context, we are not able to examine the shortcomings and inappropriate reductionism of competency-based systems, but a brief working of the dictionary reveals that there is something amiss in talking about 'competencies' or 'a competency.' For our immediate purposes, a reference to the quintessential American pragmatist, John Dewey, will suffice:

> The extent to which the process of living in any day or hour is reduced to labelling situations, events, and objects as "so-and-so" in mere succession marks the cessation of a life that is conscious experience. Continuities realized in an individual, discrete form are the essence of the latter.[1]

The structures of a theory of relevance are carefully explicated in the phenomenological sociology of Alfred Schutz. Within the confines of this study, we intend to push the level of investigation far enough to demonstrate that a theory of relevance gives us a firmer footing from which to assess competent performance and systematically plan our projects of action - practice and research - in adult education. In contrast to the prescriptiveness of competency-based approaches and behavioristic orientations, the perspective we are about to explore is very much in keeping with the notion of self-directed and client-centered learning, taking into account the prime importance of the adult learner's stock of experience.

Topical (Thematic) Relevance

We have already begun our account of this form of relevance whereby, in the words of Alfred Schutz, "something is constituted as problematic in the midst of unproblematic familiarity."[2] The object of our attention stands out from the others because of its relevance. It does not have to be immediately before us in time and space.

> To make an object a problem, to make it the theme or topic of our thought, means nothing else than to conceive it as a dubious and questionable one, to segregate it from the background of unquestionable and unquestioned familiarity which is simply taken for granted.[3]

This is what we have done in the case of competency in adult education. However, as we have seen, our theme cannot be considered as a separate entity. Schutz stresses that:

> The theme is not only within a field but also connected to other themes which together form a system. There is no such thing as an isolated problem but rather systems of problems, each interrelated with the other.[4]

Schutz distinguishes between imposed topical relevance and voluntary topical relevance. The former arises when we are faced with an 'unfamiliar' situation. One of the 'hard' facts of life is that we cannot completely prepare ourselves for all possible contingencies. Obviously, the impact of the imposition varies considerably. It would not be difficult to call to mind numerous examples of imposed topical relevance, varying in their degree of consequence, which we might encounter in our roles as adult educators and mature students. A sudden requirement that all adult educators paid from public funds must be officially certified as teachers would constitute an imposed topical relevance of some consequence. A less dramatic example of an imposed topical relevance could be taken from a typical day-to-day adult education setting in which the teacher is presented with an unexpected influx of students when the class is already well underway, or, as a self-directed adult learner, relying on various learning resources and the occasional advice of others, I might be temporarily thwarted by the unanticipated closure of the local library or an impending mail strike.

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These examples suffice to demonstrate that imposed topical relevance and its many ramifications, resulting from interruptions in automatic day-to-day expectations, establishes a fertile area for further investigations into its import for adult education.

Schutz uses the terms voluntary topical relevancies and intrinsic topical relevancies interchangeably to characterize non-imposed thematic relevance. Voluntary topical relevance refers to the manner in which we voluntarily enlarge or deepen a theme by moving data into our field of experience, and rejecting others, while still holding the paramount theme in our grasp.

A mandate that adult educators paid with public funds must be certified constitutes an imposed theme but I can still choose whether or not to explore its implications. The imposition presents an unlimited field for further investigation and there is a practically infinite number of topical relevances (sub-themes) which might be developed to realize the contents of the imposed theme. Of course, voluntary development of a theme does not have to spring from an imposed topic. For example, this investigation has flowed from a voluntary advertence to the problem posed by competency-based adult education.

What about the case where an imposed theme is anticipated? If I know a move is afoot to require certification of adult educators, for instance, I can turn to the problem 'voluntarily' - in advance. This voluntary advertence may alter entirely the nature of the impending mandate. It is difficult, then, to differentiate sharply between imposed and voluntary topical relevancies.

For the purpose in hand, there is no need to proceed further with this account of voluntary topical relevance, but we can readily envision how voluntary advertences and their inter-play with imposed themes have import for our notions of self-directed and lifelong learning as well as for politics in adult education. Thinking and purposeful action are inconceivable without a structural field of thematic relevance.

Interpretative Relevance

This form of relevance determines which elements should be incorporated into the thematic field created by the problematic topical relevance. While they are investigated, however, the paramount theme is always kept firmly 'in grip.' Only relevant elements need to be included for an interpretation of the new set of perceptions.[5] It is interpretative relevance which limits how far the analysis should go to satisfy the requirements at hand.

In order to grasp the meaning of what is thematically given, we must interpret it by reference to typical prior experiences which are part of our stock of knowledge at hand. Interpretative relevance is a function of an individual's stock of knowledge. Of course, not everything within our stock of knowledge is brought into play as part of an interpretative scheme to deal with a current problem. An instructor in elementary accounting is unlikely to incorporate a knowledge of scuba-diving, for instance, when introducing the principle of double-entry book-keeping. We would be inclined, quite justifiably, to claim that proficiency in scuba-diving is interpretationally irrelevant to the problem faced by the educator in this instance. However, knowledge acquired in the past, which might at first seem entirely inappropriate to the task in hand. could contain elements of interpretative relevance. The systematic approach required to locate and repair mechanical failures in an internal combustion engine, for example, could well be deployed in tackling a mathematical problem. To this extent, we could say that familiarity with the functioning of an internal combustion engine includes relevant elements for solving problems in mathematics.

Admittedly, these examples are simplistic but they do suffice to bring out the importance of interpretative relevance for problems in adult education. The challenge for adult educators is to identify and tease out relevant interpretative elements from their own stock of knowledge and from that of their clients. We learn to interpret.[6] The better we become at weighing the outcome of our interpretations, the more proficient we are as self-directed learners and as creators of our own projects. The following excerpt from Martin Heidegger's What is Called Thinking seems particularly apt when the significance of interpretative relevance for the teacher-learner (educator-client) process in adult education is considered:

> Teaching is more difficult than learning because what teaching calls for is this: to let learn. The real teacher, in fact, lets nothing else be learned than--learning. His conduct, therefore, often produces the impression that we properly learn nothing from him, if by "learning" we now suddenly understand merely the procurement of useful information. The teacher is ahead of his apprentices in this alone, that he has still far more to learn than they -- he has to learn to let them learn.[7]

Even more than topical relevance, interpretative relevance is a function of maturity, distinguishing the actions of what Schutz refers to as the "wide-awake, normal adult" from those of children. Within an adult's prevailing stock of knowledge are the recipes (know-how), typical situations, and prior interpretations which have already been tested and assimilated. Adults do not start from "scratch," though we recognize that many of them carry out their projects in settings where they are distinctly disadvantaged. There is a continuous interplay of thematic and interpretative relevances. Typical aspects of the problem at hand are experienced as compatible with interpretational relevances existing within the stock of knowledge. It is the adult educator's role to assist learners in identifying contextually relevant typifications.

Motivational Relevance

Motivational relevance addresses first of all the question of importance. The extent of my interest in a problem (theme or topic) is determined by the importance I attach to it. Not all problems have the same 'weight.' In some instances, it is more important for me to arrive at a sound decision than it is in others. The former are more compelling and require more careful interpretation. They have greater relevance for me, and I am motivated to examine them with greater thoroughness. Expressions of 'importance,' 'weight,' and 'interest' in the manner used here refer us to a distinctive structure of relevance which is concerned with why we act the way we do.

In identifying the structures of motivational relevance, we are able to make a significant distinction between in-order-to motives and because motives. The former refer to the future and are identical with the purpose for which the action itself is being undertaken. The latter are constituted in the past and are the reason or cause for the action. In-order-to motivational relevances are operative when our projects (what we have to do) are motivated by that for which they are undertaken. If I take a class in computer science in order to acquire a new job position, we would say that the latter is motivationally relevant for the former. We can envisage a chain of in-order-to motivations. In order to buy a mansion, I need a higher income. This motivates me to look for a better paid position for which higher qualifications are required. With this goal in mind, I take a class in order to obtain a better job in order to achieve a higher income, and so on. When I act in order to bring about a state of affairs, the kind of motive involved is the in-order-to motive of my acting. Emanating from the situation at hand, the enunciation of in-order-to motives clearly represent an important dimension of setting goals and establishing the directions along which purposeful action will take place.

We could just as readily express the circumstances outlined above by means of a chain of 'because' statements. I might say that I am taking a class in computer science because I have aspirations for a better job and that I am seeking a better job because I need more money, and so on. It is apparent that this is merely a linguistically different manner of expressing the same thing as the in-order-to statements of the preceding paragraph. These 'because' statements, then, are another form of 'in-order-to' statements and are referred to by Schutz as "spurious" or "counterfeit" because statements.

The kind of situation exemplified by genuine 'because' statements refers us to another aspect of motivation. Genuine 'because' relevancies deal with the motivation which establishes the paramount project itself whereas in-order-to relevancies arise from the already established paramount project. A genuine because motive constitutes a basis from which a sequence of in-order-to motives originate. This distinction has enormous significance for studies into motivation and participation in adult education. It is easy to become beguiled by statistical studies which derive their data solely from in-order-to responses (and spurious because statements) while overlooking the important dimension founded in 'because' relevancies. In response to a questionnaire, an adult learner might indicate, without too much reflection, that he or she is participating in a formal learning situation in order to escape the tedium of day-to-day routine (as a means to getting away from spouse and children, as an alternative to watching television, and so on). Or responses might be framed more positively in the manner of those in-order-to statements set out in preceding paragraphs. A great deal depends upon the purposes of the investigator which are reflected in the nature and form of the questions asked. In spite of probable claims to the contrary, the questions which elicit in-order-to or spurious 'because' statements are derived subjectively from motivational relevancies which pertain to the individual investigator.

Motives founded on 'because' relevancies cannot be elicited from questionnaires which address in-order-to motives. An adult learner may be participating in a course because of a compelling need to achieve recognition or from a fear of failing to fulfill the expectations of others. Such motives are part of an individual's autobiography, and they are more difficult to identify than in-order-to motives. Motivational studies in adult education will be greatly enhanced when they begin to explore the 'because' relevancy structures which motivate both participants and non-participants.

As with topical and interpretative structures, the distinction between imposed and intrinsic dimensions applies to motivational relevance. New motivationally relevant material may be drawn into the paramount theme by a voluntary shift of attention. Socially derived motives are often experienced as imposed, and the identification of a clear-cut goal on the part of an individual engenders its own imposed motivations. So motivational relevance may be experienced as imposed from the external environment or else as a manifestation of inner directedness. When adult educators talk of self-directed learning they are thining in terms of the latter.

The forms of relevance are a way of bringing coherence to that part of experience, namely competent performance, which we are trying to grasp in its fullness (that is, monothetically) and through its interconnectedness with relevant elements of the adult's lifeworld. For as Henri Bergson reminds us:

> In life, a multitude of useless things are said, many superfluous gestures made, there are no sharply drawn situations; nothing happens as simply or as completely or as nicely as we should like; the scenes overlap; things neither begin nor end; there is no perfectly satisfying ending, nor absolutely decisive gesture, none of those telling words which give us pause: all effects are spoiled. Such is human life.[8]

Interdependence of Relevance Structures

The systems of motivational, thematic, and interpretative relevance are not disparate structures. While we distinguish between them for the purpose of analysis, they are experienced as a unitary whole. Motivational relevances are constituted within an individual's stock of knowledge from experiences which were formerly thematically or interpretationally relevant, and interpretative relevances depend upon thematic relevances. However, the three forms of relevance do not necessarily follow the sequence described. The interrelationship is not temporal. We can begin with any one of the systems of relevance, and our investigation would lead us to an exploration of the others. As an example, let us assume that I am motivated to take a university adult education course for teachers of English as a Second Language. (This refers us to the realm of because and in-order-to relevance structures). Let us further assume that a problem arises within the context of the class which leads me to consult a book on cultural anthropology. (Here, thematic and interpretative relevancies come into play). Recollecting my childhood fascination with accounts of other cultures and subsequent happy encounters with people from different ethnic backgrounds, I am not motivated to delve further into cross-cultural studies. The interpretation of a thematic structure has given rise to - or transformed - the motivational relevances. It has 'triggered off' something from my past experience which was not previously relevant to a future project. Through the constitution and interplay of new thematic relevancies, my perspective on the problem of teaching English as a Second Language will be broadened. The establishment of new interpretative relevancies to explicate further themes - the addition of yet another group of students from a different culture to the English as a Second Language Class, for instance - alters both thematic and motivational relevancies.[9]

The foregoing analysis of the underlying systems of relevancy represents a critical phase in constructing a theory of projected action and competent performance in the adult's life-world. Competent performance is a rule-following activity which can be dealt with systematically in terms of the structures of relevance but cannot be divorced, in a meaningful way, from action itself.

There is a far greater onus on us, as adult educators and learners, to engage critically with the learning process when we refrain from bringing to bear at the outset those prescriptive and reductionistic formulations typified by the competency-based approach. From the perspective of a theory of relevance, knowledge, thought, and inquiry are to be viewed as systematic activities rather than as passively received entities. Adults are not mere puppets at the mercy of inevitable forces which they hope to mitigate with a series of 'coping skills.' Rather, they are conscious agents who have the potential to shape an environment which is neither complete nor determinate. The theory of relevance is founational to the process of choosing between, developing, and evaluating projects in every day life. It offers adult educators a sound framework for systematic program planning and evaluation, and for further research into the adult learning process through ethnographic accounts and phenomenological investigations.

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[4] Ibid., p.35.

[5] Alfred Schutz, Op.Cit., p.36.

[6] Alfred Schutz and Thomas Luckman, The Structures of the Life World, (Evanston: Northwestern University Press, 1973), p.207.

[7] Martin Heidegger, What is Called Thinking? (Translated by J. Glenngray), (New York, N.Y.: Harper & Row Inc., 1968), p.15.

[8] Henri Bergson, The Creative Mind, (New York, N.Y.: The Philosophical Library Inc., 1946), p.249.

[9] This example is not idly chosen. It is apparent that traditional language teaching to adults from different cultures is wholly unsatisfactory unless it addresses the problems connected with cross-cultural dynamics.

THE PERFORMANCE OF PUBLIC SCHOOL TEACHERS AS EDUCATORS IN COOPERATIVE EXTENSION

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INTRODUCTION

The professional literature of adult education contains many references to the differences between the provision of education for children and youth in schools (pedagogy) and the provision of education for adults in out of school settings (andragogy). According to Knowles (1970) educating adults requires the use of different assumptions and practices. If this is so, then is it an advantage or a disadvantage for learners to be taught by adult educators who have been trained and have practiced pedagogy prior to teaching adults? For years Adult Basic Education programs have employed primarily elementary and secondary school teachers. School teachers in ever increasing numbers have been shifting their careers to adult education at least partly in response to unemployment in their field of education. Little is known about the effects of pedagogically trained educators on the practice of the field of adult education. In addition, many adult education administrators are asking whether pedagogical background is an asset or a liability to be taken into consideration when employing adult education personnel. Adult education staff development personnel are asking whether the continuing education needs of adult educators differ according to their backgrounds as school or non-school teachers. The purpose and focus of this study was to ask whether home economics Cooperative Extension agents who have taught elementary or secondary school differ from agents who have not been so employed in regard to: 1) their perceptions of their background experiences that they considered relevant to the effective practice of adult education; 2) their adjustments and changes that they reported having made when they first came to their adult education positions with Cooperative Extension; and 3) their professional performance ratings by self, supervisors, colleagues, and volunteers?

METHODOLOGY

This research combined qualitative and quantitative approaches to survey research (Rist, 1977). Open-ended elite and specialized interviews (Dexter, 1970) were conducted by telephone for approximately 30 minutes with a random sample of 34 New York State Cooperative Extension agents who held community adult home economics staff assignments at the time of the study. General topics covered in the interview included: 1) educational background; 2) work experience prior to taking a position with Cooperative Extension; teaching experience in schools and in non-school settings; 3) other experiences that respondents considered relevant and especially important in serving their function as agents; 4) types of persons respondents had worked with prior to their work as agents; and 5) tasks, functions, and adjustments that respondents experienced as new to them when they first came to their work as agents.

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At the conclusion of these open-ended, qualitative interviews, the informents were asked to participate in a performance rating process that involved the use of a performance evaluation instrument developed for the Cooperative Extension Services by Hahn (1979). They were asked to undertake a self rating using the instrument that was subsequently mailed to them. In addition, they were asked to provide the names of a supervisor, a colleague, and at least two volunteers whom they judged to be knowledgeable concerning their work. All of these nominees were then sent the performance rating instrument if the agent agreed to participate.

The population of Cooperative Extension agents consisted of 199 agents who were listed in the Cornell Staff Development Office as having as of January 1980 at least 50% assignment in adult home economics subject matter and were located at the county program level. A random sample of 35 was selected. Interviews were conducted with 34 out of the 35 persons selected. Table 1 depicts the number of responses to the mailed professional performance rating survey.

Table 1

Distribution of Responses to mailed professional performance rating survey according to Types of Respondents

Type of Respondent	Number Mailed	Number Returned	Percent
Agents agreeing to participate	28	24	86
Nominated Supervisors	28	24	86
Nominated Colleagues	28	21	75
Nominated Volunteers	56	40	70

The Cooperative Extension Performance Questionnaire (Hahn, 1979) was developed and tested by the American Institutes for Research staff with cooperation from 1,250 Cooperative Extension agents in the states of Iowa, Michigan, New Hampshire, New Mexico, Pennsylvania, South Carolina, Texas, and Washington. The rating items were developed by the use of the critical incident technique in conferences with agents, a position analysis questionnaire and a job analysis questionnaire. The Performance Questionnaire that was developed by Hahn and used by this author in the present study is currently be[illegible] introduced to a number of State Cooperative Extension Organizations a[illegible]art of their Performance Evaluation Systems. Data from the present study was not reported back to agents nor is it to be used in any way for performance review since anonymity of results was promised to informants in order to comply with human subjects' review requirements.

The Performance Questionnaire containes 75 items on results related to program planning, promotion and public relations, program implementation, and program support. In addition, it contains 126 items on behaviors related to program planning, promotion and public relations, program implementation, program support, interpersonal and personal behaviors generally related to job, and supervisory performance. Each item permitted a judgment range that included: agree, disagree, neither, don't know, or not applicable.

Qualitative interview data, taken down verbatum as much as possible, were analyzed using content analysis of items, themes, and structures. Quantitative data from the Performance Questionnaires were analyzed using an SPSS file and then computing t tests in order to determine a 2-tail probability of significance. Data alterations included dropping the "not applicable" responses and standardizing positive-negative responses.

FINDINGS

In this section, findings are reported on differences between Cooperative Extension agents with or without full time elementary or secondary school employment.

Background Experiences Relevant to Adult Education

During the interviews, the sample of 34 Cooperative Extension home economists were asked to discuss their prior teaching experience, types of persons with whom they had worked before their Extension employment, and any other experience or background that they viewed as being especially important and relevant in serving their functions as Cooperative Extension agents.

In regard to teaching background there were some differences that were expected. Sixteen agents reported that they had been employed as full time elementary or secondary school teachers. The length of time ranged from six months to eighteen years with a mean of .9 years of elementary school experience and 3.9 years of secondary school experience. Eighteen agents had never been employed regularly as school teachers, however, seven of this group had completed their student teaching in schools and four of these had done a little substitute teaching. Another two agents in this second group reported having taught at the college level for a brief time. The agents who reported no full-time school teaching experience were not therefore a pure non-school teacher group since over one third of them had elementary and secondary teacher preparation.

Analysis of data from agents with and without full time teaching background did indicate several different responses regarding their prior teaching experiences in non-school settings. The 16 former full time teachers reported a total of 17.5 years of teaching in non-school settings compared with 27 years of non-school teaching on the part of their 18 colleagues. The differences between the two groups appear greater, however, when a comparison is made between the total number of years teaching children or adults in non-school settings, prior to Cooperative Extension employment.

Table 2

Distribution of years of teaching experience with children or adults distributed according to types of Respondents - those with or without full-time teaching experience prior to employment with

	Number	Years with Children	Years with Adults	Total
Former Full-Time Teachers	16	7.5	10	17.5
Former Non Full-Time Teachers	18	4	23	27

Both groups reported non-school teaching experience in churches, Head Start, day care, sewing center, and volunteer youth work through 4-H and Girl Scouts. The former full-time teachers were different in their reporting of experience in the non-school settings of dietetic internship, driver education, Upward Bound, and the Works Projects Administration (WPA). The Extension agents without full-time school teaching background differed in their reporting of experience in nursing homes, community education and business. Although both groups reported some participation in public adult education the non teachers' years of experience totaled 14 years compared to the former full-time teachers' total of 3 years.

Analysis of interview data regarding the types of persons the agents worked with prior to their employment with Cooperative Extension also showed differences between the two groups. The 18 agents without full-time school teaching background reported working primarily with adults and secondarily with youth. The former full-time teachers reported working primarily with youth, secondarily with children and some with adults. Both groups reported working primarily with lower income rural or urban persons. Few reported working in suburbia. When agents discussed the relevance of their background experiences which they viewed to be important in serving their functions as Cooperative Extension agents, they reported many items. However, data analysis revealed that there were five general areas that were mentioned: 1) diverse human relations experiences; 2) volunteer experiences; 3) prior employment; 4) academic background; and 5) family life experiences. The list is in rank order of times items in each category were mentioned. The top item, diverse human relations included experiences that provided opportunities to learn how to be flexible in relating to human differences. Mobility during childhood and youth was mentioned as contributing. Almost all agents reported that participation as a 4-H youth was an important contributing experience. The agents without full time teaching experience tended to mention volunteering in community groups and agencies. Both groups mentioned their respective employment experiences. The former full time teachers mentioned their academic backgrounds in education and psychology in contrast to their colleagues who referred mainly to their general education as making a contribution to their Extension work. Members of both groups mentioned the importance of their family backgrounds to their work. This included the influence of their own parents, learning experience in the home, and rearing children of their own.

Initial Adjustments and Changes

During the interviews, agents were encouraged to recall their initial period of employment with Cooperative Extension and to mention any adjustments and changes that they viewed as necessary to make if their Cooperative Extension positons were viewed as different from their prior employment or volunteer work.

When data were analyzed it was found that 15 out of the 16 former full-time school teachers said that working in Cooperative Extension with its general public constituents was very different from their former employment. Only eight out of eighteen of the agents without full time school teaching said that their work with Extension was very different. Both groups listed the differences as: 1) working with advisory committees and engaging in corporate planning; 2) experiencing greater professional independence and self direction; 3) supervising volunteers and paraprofessionals; 4) adjusting to a broad diversity of constituents, public expectations and political constraints; 5) working with interagency relationships; and 6) using the mass media for education. Differences that required changes especially for the former full-time school teachers included: 1) teaching volunteers how to teach; 2) working volunteer adult learners who are not captive audiences; 3) providing accountability evidence to the public; 5) teaching more people with less in-depth subject matter; and 6) learning from their adult students. The only different adjustment mentioned exclusively by agents without full-time school teaching experience was planning lessons and developing curriculum.

Professional Performance Ratings

Data analysis results of performance ratings by agents, colleagues, volunteers and supervisors failed to show strong significant differences between the two groups (P.< .05). The 2-tail probability levels (see Table 3) that show some statistical significance are scattered and split and do not warrent a judgment favoring either group. It is interesting that the agents without full time teaching experience give themselves significant higher ratings on program implementation results (.001), however, this judgment was not shared by the other raters. There were no significant differences between the two groups when data were analyzed according to age and length of employment.

Conclusions

There are qualitative differences in the backgrounds of home economics Cooperative Extensions' agents with and without full time teaching experience that require them to learn a few different competencies at the outset of their employment in Cooperative Extension. However, there appears to be little evidence that they differ significantly in performance as groups, which may mean that regardless of deficits in background the on the job experience may erase whatever differences there were at the outset of employment. This limited evidence does not warrent a policy of preference of backgrounds for either groups as a criteria for employment in Cooperative Extension. Planners of inservice opportunities for new Cooperative Extension employees should take into account the initial differences between the groups.

Table 3

Summary of 2-Tail Probability Scores of Professional Performance Ratings between Cooperative Extension home economists with and without former experiences as full-time school teachers according to type of respondent raters (N=24 agents as self evaluators, 21 colleagues, 40 volunteers, 24 supervisors, 109 total respondents).*

	Performance Ratings									
	Results				Behaviors					
Types of Respondent Raters	Program Planning	Promotion and Public Relations	Program Implementation	Program Support	Program Planning	Promotion and Public Relations	Program Implementation	Program Support	Interpersonal and Personal	Supervisory Performance
Agent Self Eval.	.26	.47	NT +.001	.84	.43	.29	.09	.59	.09	.46
Colleagues	.53	.86	.21	T +.04	.67	.75	.40	.13	T +.053	.45
Volunteers	.75	.41	.43	.64	.58	.40	NT +.049	.13	.26	NT +.039
Supervisors	.27	.65	.47	.39	.62	.19	.16	.95	.06	.67
Total Respondents	.86	.99	.51	.10	.92	.31	.69	T +.04	T +.053	.26

* $P. < .05$
+ T. = significant higher ratings for former full time school teachers
NT. = significant higher ratings for agents with non teacher backgrounds

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THE INTERDISCIPLINARY ASPECT OF CONTENT SELECTION AND ORGANIZATION IN UNIVERSITY CONTINUING EDUCATION NONCREDIT PROGRAMMING

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INTRODUCTION

Increasing specialization, accelerating change, expanding information and problems that grow ever more complex are challenges facing adult educators today. How can adult educators plan programs that deal with all these challenges in ways that promote adult learning and development? One exciting and important answer to this question is interdisciplinary programming.

Interdisciplinary programming is not a new idea for adult education. The field's literature is replete with recommendations for programming that goes beyond the use of content from only one discipline. The philosophical bases for these recommendations are diverse. Some spring from pragmatism and its call to use content from several disciplines in problem solving. Others relate to liberal education's call for broad understanding that can be gained best by considering several disciplinary perspectives. Still others are rooted in existentialism and its focus on helping people find meaning in their lives through use of content from several disciplines.

Although interdisciplinary programming occurs in adult education, disciplinary programs using content of only one discipline also are planned. And, little is known about why adult education programming ranges from the disciplinary to the interdisciplinary. The purpose of this study was to explore the disciplinary-interdisciplinary aspect of content selection and organization in university continuing education noncredit programming. Two questions were investigated:

1. Why is program content selected from one or from several disciplines?
2. Why is content selected from several disciplines organized so it either remains unrelated, is interrelated or is synthesized during program planning and implementation?

To provide an overall focus for the study, these two questions were combined within a single research question that operationally addressed both: Why do university continuing education adult noncredit programs range along a continuum containing programs at one end that use content from one discipline, to programs at the other end that use synthesized content from several disciplines? This continuum has been called a disciplinary-interdisciplinary continuum.

THEORETICAL FRAMEWORKS

The study's dependent variable was program position on the disciplinary-interdisciplinary continuum. Program position on the continuum depended upon the number of disciplinary contents employed in the program and upon the level of synthesis achieved among these various contents. Disciplinary programs use content identified with a single discipline, while interdisciplinary ones have synthesized content of several disciplines. Between these two major program structures are two other types. In them, contents identified with several disciplines are introduced, but they either remain

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separate or they are related during program development, but not synthesized.[1]

Independent variables were factors hypothesized in the literature to relate to program continuum position. These factors were placed into four broad categories:

1. Institutional context, which included factors such as sponsoring organizational unit and flexibility of programmers' roles.
2. Programmers' planning orientations which were defined as the general points-of-view programmers use in selecting and organizing content. Three factors were included in this category: (a) programmers' tendencies to maintain boundaries between themselves and faculty from other disciplines; (b) programmers' tendencies to select content from one or from several disciplines; and (c) programmers' beliefs about the uses to which program content should be put by participants.
3. Program participants' uses of content, which was defined as how programmers expected participants to use what they learned in a program.
4. Educational needs of program participants/society, which included considerations of the method of need identification and the type of need identified.

Because the study was exploratory, factors not suggested in the literature also were identified and categorized as they appeared in the data.

RESEARCH METHODOLOGY

An exploratory case study research design was used to investigate the study's research question. Program position on the continuum was considered a discrete variable, and the continuum was operationalized as a rating scale having six points. Point one on the continuum was the disciplinary position. Point two represented programs that used unrelated content from two or more disciplines. Points three, four and five represented programs using different levels of interrelated content of different disciplines. Point six was the interdisciplinary continuum position.

Seventeen programs from six program areas of a large midwestern university's continuing education division were nominated for study by the chief program administrators of each program area. These programs were placed on the continuum by a panel of judges who used documentation obtained about the programs. Interrater reliability for these ratings was .84.

From the seventeen nominated programs, six were selected for in-depth case study. Two programs were disciplinary. One program used unrelated content of several disciplines, and one program used content from several disciplines that was minimally interrelated (continuum position 3). The two remaining programs occupied continuum position 4, because relatively complete interrelationship among contents of different disciplines had been achieved in their development and implementation. No nominated program was found to occupy continuum positions 5 or 6, although the researcher had requested nominations of such programs.

Data concerning the independent variables were generated through interviews with programmers, program administrators, others who shared in program content selection and organization and program participants, as well as through document analysis. Thematic and structural content analyses were used to analyze and categorize data.

FINDINGS

Factors related to content selection and content organization have been conceptualized as existing along two triangles (see Figure 1). The lower triangle represents findings related to content selection, and how these findings interrelate to broaden the potential for selecting content from one or from several disciplines. Program continuum positions are identified next to this triangle and show that when only content selection is considered, a program can have only two continuum positions -- 1 or 2. Content will be selected either from one or from more than one discipline. Further, broadness in scope of disciplinary content selected does not guarantee a program position close to the interdisciplinary end of the continuum. Rather, only continuum position 2 is insured. Other factors related to content organization must be at work for programs to occupy positions 3 through 6.

The upper triangle represents findings related to organization of content selected from more than one discipline. The narrowing of this triangle represents closer relationships among disparate disciplinary contents until synthesis is achieved at the apex, the interdisciplinary continuum position.

Content Selection. The potential for selecting content from several

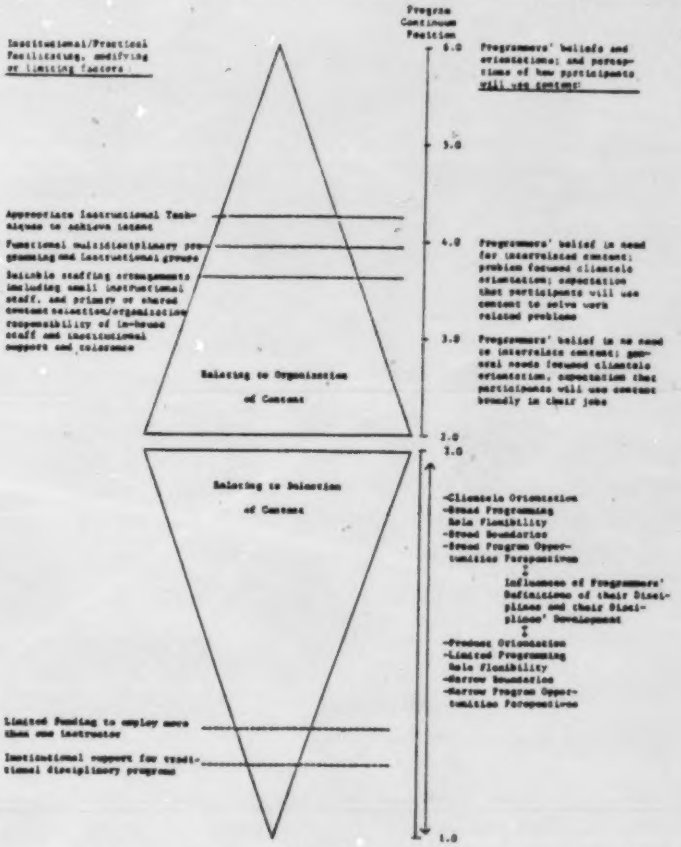
Program Continuum Position
Institutional/Practical Facilitating, modifying or limiting factors
6.0
Programmers' beliefs and orientations; and perceptions of how participants will use content:
5.0
Appropriate Instructional Techniques to achieve intent
Functional multidisciplinary programming and instructional groups
Suitable staffing arrangements including small instructional staff, and primary or shared content selection/organization responsibility of in-house staff and institutional support and tolerance
4.0
Programmers' belief in need for interrelated content; problem focused clientele orientation; expectation that participants will use content to solve work related problems
3.0
Programmers' belief in no need to interrelate content; general needs focused clientele orientation, expectation that participants will use content broadly in their jobs
Relating to Organization of Content
2.0
2.0
Relating to Selection of Content
-Clientele Orientation
-Broad Programming Role Flexibility
-Broad Boundaries
-Broad Program Opportunities Perspectives
Influences of Programmers' Definitions of their Disciplines and their Disciplines' Development
-Product Orientation
-Limited Programming Role Flexibility
-Narrow Boundaries
-Narrow Program Opportunities Perspectives
Limited funding to employ more than one instructor
Institutional support for traditional disciplinary programs
1.0

Figure 1: Relation of Findings about Content Selection and Organization to Program Position on the Disciplinary-Interdisciplinary Continuum

disciplines was found to broaden (1) when participants' needs were considered before content was selected and (2) as programmers' roles, boundaries between faculty of other disciplines and the number of disciplines from which programmers believed content could be selected (program opportunities perspective) broadened. These findings were closely intertwined with the influence of programmers' disciplines -- or, the way programmers defined their disciplines and how their disciplines defined their programming roles and content selection parameters.

In the study, a "discipline" was defined generically to include subject matter areas traditionally called disciplines and subject matter areas traditionally called professions. As a result of this conceptualization, distinct differences were found between the ways programmers identified with traditional disciplines and programmers identified with professions approached content selection.

Content of traditional disciplines was present in the two programs that occupied the disciplinary continuum position. Planning for each of these programs was done with a product orientation -- programs were offered with no efforts at approaching participants to see if they wanted or valued program content. Further, programmers of these two programs had limited perceptions of programming roles they could assume and tended to program with people in their own discipline.

The remaining four programs, which occupied continuum positions 2, 3 and 4, were planned by programmers who were in the professions. Unlike programmers of the disciplinary programs who had product orientations, programmers of programs using content of several disciplines had clientele orientations -- they looked first to potential participants before content was selected. This was accomplished through various methods, such as formal needs assessments and creation of planning committees.

Programmers of programs occupying continuum positions 2, 3 and 4 also relied heavily upon their perceptions of their professions in defining their content selection parameters, what faculty of other disciplines they could work with and the breadth of the programming roles they could assume. These programmers selected content from professions closely related to their own, from disciplines that had contributed to their profession's development, and from other professions with which their profession had to work in practice settings. The more broadly they defined their profession in relation to contributing disciplines and associated professions, the broader their content selection parameters became. Findings indicated, then, that programmers' disciplines helped define their identities and shape their perceptions of what was possible and desirable in content selection.

Two other factors were found to relate to content selection. Both would have placed limitations on the potential for programmers of disciplinary programs to select content from several disciplines, if they had wanted to. One was the requirement that the content of their programs fall within the "turf" of the sponsoring organizational unit. The other was the perceived unavailability of sufficient budgetary support to employ instructors from several fields for their programs. These practical factors, however, appeared only to limit and modify the original intents and perspectives of programmers. Therefore these factors were placed to the left of the lower triangle in Figure 1, with dotted lines running across the triangle to indicate their limiting or modifying character.

Content Organization. Three factors, each identified with programmers' planning orientations were found to relate most directly to whether the content of programs using different disciplinary contents was left unrelated (continuum position 2), was minimally interrelated (continuum position 3) or was completely interrelated (continuum position 4). These three factors are included to the right of the upper triangle in Figure 1.

The first factor was programmers' beliefs about the need for interrelating the different disciplinary contents of their programs. Programmers of programs at continuum positions 2 and 3 believed interrelating the diverse content of their programs was unnecessary. On the other hand, programmers of programs at continuum position 4 believed interrelated content was necessary for their programs and generally desirable for all programming.

Second, although all programmers of programs at positions 2, 3 and 4 looked first to the needs of potential participants before selecting content, they differed in the focus they used when considering participant needs. Programmers of programs at positions 2 and 3 focused on the broad and general needs of participants. The result was use of content from several disciplines that remained unrelated or minimally related because the programming focus was broad. In contrast, programmers of programs at position 4 focused on specific work related problems faced by participants. These programmers used these problems to interrelate content from different disciplines.

The third factor was how programmers expected program participants to use program content. Programmers of programs at positions 2 and 3 expected program participants to use content in their work, but the use was broad and unspecified. Programmers of programs at continuum position 4, on the other hand, expected program participants to use content to cope with or solve specific work related problems. Programmers' clientele orientations, therefore, were related to and were consistent with the ways programmers expected participants to use program content.

What these three factors failed to explain was the difference in the two programs found respectively at positions 2 and 3. As has just been indicated, programmers of these two programs had similar planning orientations, and the programs they planned would be expected to occupy the same continuum position -- position 2. However, data about the program at position 3 indicated that its continuum position was not due to program design. This program had been offered for eight years to a similar participant group, and a core of instructors had taught in the program each time it had been offered. As this core of instructors began to know the participant group and the perspectives of other instructors better, they began to make ties, if only minimally, among the different disciplinary contents they taught. In addition, programmers of this program were present at most program sessions, and although not planned, their presence and comments helped interrelate the various disciplinary contents considered in the program.

As was the case for content selection, several factors were found to limit, modify or help programmers carry out their plans for content organization. Four of these factors were identified, and these have been placed to the left of the upper triangle in Figure 1. The first was institutional and administrative support, or at least tolerance, for programmers planning programs that occupied continuum positions 2, 3 and 4.

The second factor was suitable staffing arrangements. Programmers of programs at positions 2 and 3 relied heavily upon large numbers of instructors from outside the sponsoring institution. In addition, instructors of these two programs usually came to the program, gave their presentations and left immediately afterwards. Both the large number and the general unavailability of these instructors for planning meetings and team teaching impeded interrelating program content. In contrast, programmers of programs at position 4 used a small number of instructors who came primarily or exclusively from the sponsoring institution. The small number of instructors and their geographic proximity allowed joint planning and instruction, which contributed to achieving interrelationships among different disciplinary contents.

The third factor was the presence of functional multidisciplinary planning and instructional groups for programs at position 4. These multidisciplinary groups of faculty worked together to plan and team teach these programs so program content could be interrelated. No such group was present in the planning or the instruction of programs at positions 2 and 3.

Finally, appropriate instructional techniques had to be available so content could be interrelated, if that was intended. Lecture, demonstration and discussion were the instructional techniques used in programs at positions 2 and 3. Programmers of programs at position 4 used similar techniques, but also added others to interrelate content. These other techniques included use of work related examples, case studies and problems brought to programs by participants. These techniques also helped program participants interrelate what they were learning with what they already had learned from past experience.

CONCLUSION

This study's independent variables, or factors related to program position on the disciplinary-interdisciplinary continuum, were developed using the assumption that programming decisions result primarily from transactions among the sponsoring institution, programmers and program participants. Findings indicated that, although this assumption was correct, program position of the continuum was more dependent upon programmers and their planning orientations than upon institutional and program participant related factors. Programmers' original intents were only limited, modified or assisted by factors associated with the sponsoring institution. And, programmers, through use of their orientations, determined the kind and extent of influence participants had on program content selection and organization. Another recent study also has found that programmers and their planning orientations not only influence programming, but the kind of learning that takes place in programs.[2] It would appear, then, that programmer's planning orientation is a variable deserving additional study, so that its influence can be better understood in relation to other factors influencing programming.

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A LONGITUDINAL STUDY OF SOME UNCONVENTIONAL YOUNG WOMEN

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In Canada, there are many professional engineers, and almost all of them are men. It might seem that this is only right and proper, being a natural consequence of some innate weakness of the female brain which prevents women from grasping mathematical concepts and technical principles. However, when one attends international conferences of engineers, held in England, Italy, Poland and France,[1] and realizes how much higher the participation rate of women is in other parts of the world, it becomes difficult to believe that only *Canadian* women suffer from this mental affliction.

One looks in vain for any deliberate attempt to prevent Canadian girls from becoming qualified as professional engineers. University engineering faculties have accepted women students on the same admission criteria as men for at least sixty years. So the universities are not at fault. How about the engineering profession itself? To practise as a professional engineer in Canada, a person must be licensed by a provincial association of engineers, a body which demands both a university degree in some recognized branch of engineering and a couple of years of appropriate industrial experience. The regulations are the same for men and women in all ten Canadian provinces. All provincial associations have some women members and have had for many years. It is not the profession that is excluding women. Therefore, one is forced to conclude that only tradition and social custom have restricted so drastically the number of women in Canada's engineering profession. It is not that the Canadian young woman decides against studying engineering--the idea of doing so is unlikely to even occur to her. The notion that this situation does not have to be permanent is much enhanced by observation of events taking place in the United States.

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One effect of the affirmative action programme of the United States government has been the dramatic increase in the number of women engineers. Thousands of young American women engineers are now employed in both the private and the public sectors and engineering faculties at American universities have sizable female enrollments.[2] There is nothing in Canada equivalent to the affirmative action programme and no incentive for employers to recruit women for technical positions.

Very little is known about women engineers in Canada. A mailed questionnaire survey carried out by Goodings[3] a decade ago confirmed the fact that the woman engineer was a rarity in Canada and uncovered the information that she was quite likely to be an immigrant from some country where preparing for a career in engineering was not considered very peculiar for a girl. But times are changing! As both a professional engineer and an educational researcher, the writer had long dreamt of carrying out a longitudinal study of young women who were so unconventional as to enroll in an engineering course at university. It seemed desirable to plan such a study to last at least six years so as to give the young women time to complete a four-year undergraduate programme of engineering studies and then get the industrial experience required for registration as a professional engineer. Longitudinal studies are a special interest of this researcher. It was not until the mid-1970's that there appeared to be a high enough enrolment of women engineering students in the universities of the province of Ontario, Canada, to make such a research project feasible because it was felt that at least a hundred research subjects would be necessary to justify generalizations. Additional impetus was provided by the completion in 1976 of a 21-year longitudinal study of a complete cohort of Ontario engineers, all of whom were men.[4] Now it was the women's turn!

METHODOLOGY

In a very old, English cookbook, there is a recipe for rabbit stew which begins, "First of all, catch your hare!" The researcher was reminded of this when she decided to undertake a longitudinal study of a complete cohort of women engineering students in Ontario. Obviously, the first step was to locate the research subjects. Even the *number* of them was unknown. A little library research showed that there are ten universities in the province that have four-year undergraduate programmes in engineering and which, according to their calendars, accept secondary school graduates of either sex. Rather than travelling to or engaging in correspondence with each of ten universities trying to get permission to undertake the research and obtaining access to the names and addresses of first year, women students in engineering, the researcher made use of a very effective, short-cut strategy which yielded permission, encouragement, access and practical assistance all at once. Each university has its Dean of Engineering and these men meet periodically to discuss their common concerns. The researcher knew one of the Deans as they had been engineering undergraduates together some thirty years ago, and so it was arranged to have the proposed longitudinal study of women students put on the agenda of the next provincial meeting of Deans. After the researcher had made a presentation and answered questions, there was unanimous agreement among the Deans that they would help in the construction of the initial data-gathering instrument and see that it was brought to the attention of each woman student in the first year of any engineering programme.

This research was undertaken at an auspicious time. The present period is one of declining enrolments at all levels, including university undergraduate programmes. Engineering faculties are in a particularly difficult position when it comes to maintaining numbers because the programmes are demanding ones which can only be handled by secondary school graduates who have an above-average level of achievement in mathematical and scientific subjects. As the financial resources of faculties depend to a considerable extent on the number of students enrolled, there is--for the first time in Canada--a strong incentive for engineering faculties to actively seek means of attracting suitably-qualified *women* students. This unique situation likely accounts for the interest of the Deans of Engineering in a research project concerning a very small minority of their undergraduates; namely, women students, and particularly in the factors that influence their decision to study engineering and the encouragement and discouragement they receive from various sources before and after enrolling in engineering.

Early in the 1976-77 academic year, the Deans located for the researcher, *one hundred and sixty-three* young women, each of whom had just embarked on an undergraduate programme of engineering studies at one or another of ten Ontario universities. They became the research subjects of this longitudinal study of unconventional young women.

Both formal and informal methods of collecting information are being used in this research. Two very carefully-designed questionnaires have already been completed by the research subjects and a final one will be administered two years from now when the longitudinal project terminates. The first questionnaire reached the young women early in their first year of engineering studies. They were encouraged by their Deans to answer it frankly and then mail it directly to the researcher. A covering letter identifying the researcher as a woman engineer no doubt established the excellent rapport between researcher and research subjects that has characterized this project. The second questionnaire was mailed to the research subjects at their place of residence in the spring of 1980, at the end of the fourth academic year. In keeping with good practice in longitudinal studies, every research subject was located (but not necessarily contacted) every year, so that the mailing list was always up-to-date.

During the second and third years of the four-year undergraduate program, individual, structured interviews were held with a twenty-five per cent, stratified, random sample of the women students. These hour-long interviews usually took place when the researcher had other business in the city where a selected student was attending university or working at a summer job. No student ever declined to be interviewed and some who had not been selected, contacted the researcher to ask when their interviews would take place.

As well as the research data collected by these formal procedures, a great deal of interesting and useful information is being gathered informally. At various times during the past few years, the researcher has been invited to address groups of women students in engineering at the participating universities. These occasions are quasi-social in that each meeting begins or ends with a luncheon, a wine and cheese reception or a buffet dinner. After a light-hearted address about her adventures as an engineering student and as a young engineer a generation ago, the researcher changes to a general discussion format in which students exchange anecdotes and compare perceptions in what they like to call a "rap session". These contacts with women engineering students at all stages of their programmes provide a wealth of detail about feelings, attitudes and impressions of young women who are sufficiently unconventional to choose engineering as a field of study.

FINDINGS

Before making the decision to enroll in engineering, only *two* of the 163 research subjects had ever met a woman engineer. Three more could recall the name of a woman engineer they had read about. Most of the others did not even know whether or not there were any women engineers in Canada. However, almost half the research subjects had a female relative, neighbour or friend-of-the-family who was working in a predominantly-masculine field. It might be an aunt who was a lawyer, a neighbour in accounting or a cousin studying medicine. In no case was the young woman's mother in any sense a role model. In fact, just the opposite was true. The majority of them were housewives who had at one time or another been in paid employment as office workers, nurses, elementary school teachers or salesclerks.

In response to questionnaire items about who had attempted to dissuade them when they decided to enroll in engineering, these first-year students named their mothers more often than any category of persons. Grandmothers and older sisters were also less than supportive of the young women's choice of field of study. However, on the questionnaires that were completed four years later, female relatives were frequently described as having changed their attitude completely. Most of them had become very pleased by the young women's unconventional accomplishment.

Although there were a few exceptions, the vast majority of the first-year women engineering students reported that their male relatives, particularly their fathers, were very supportive of their decision to study engineering. Some fathers did express concern that prejudice against employing women in responsible positions might make it difficult to find employment after graduation.

It was not only at home, but also at secondary school, that men were more supportive than women of the research subjects' university plans. However, they got very little encouragement to study engineering from teachers, principals or counselors of either sex. This is an interesting finding because, while these young women were growing up, a great deal of public attention was focussed on women's changing roles in society. Only ten per cent of the research subjects recalled a teacher who had approved of her career choice and praised her ambition. Almost always, it was a male teacher.

Both from their replies to items on formal questionnaires and from informal comments about their experiences as students of engineering, it is clear that the women were both surprised and pleased by the attitude towards them of professors in engineering faculties. They are treated just like any other student.

What is it like to be the only woman student in a class of engineers or to be one of just two or three women among a hundred men? With very rare exceptions, the research subjects report that this situation is in no way awkward or difficult. They say it is like having a great many brothers.

According to the research subjects, women students in traditional courses tend to be critical of women engineering freshmen but this attitude changes to one of admiration as they move through their undergraduate years. Some are frankly jealous.

An integral part of the design of the longitudinal study is a statistical analysis of the academic achievement of the women students in comparison with their male counterparts. The consistent finding of all the statistical tests has been either one of no significant difference or one of slight superiority on the part of the women.

Of course, the crucial test of a woman's wisdom in taking an engineering course is not whether or not she can pass the annual examinations but rather whether or not she can obtain employment that makes use of the specialized knowledge she has acquired. No matter what special field the women students elected--civil, mechanical, electrical, etc., their employment opportunities upon graduation were excellent. A month before graduation, ninety per cent of the graduating women had definite job offers and many were trying to weigh the merits of several excellent opportunities. The salaries offered were the same as those being offered to male graduates. Not one complained of any difficulty in finding a job in the engineering field.

The research subjects are Ontario's first crop of home-grown women engineers.

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THE FUNCTIONS OF BRAIN LATERALIZATION IN THE PROCESS OF ADULT LEARNING

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Needed research on adult learning has been called the greatest research concern in the field of Adult Education.[1] Within each of the various analyses of the reasons why such research has not taken place is the awareness that no one specific model of adult learning has been identified upon which to base research. This author has made a decision to focus upon one operational base for research on the adult learning process and based upon this process has analyzed the influence of brain lateralization. Background information provided here includes an analysis of the conceptual bases for the research on adult learning as well as brain hemisphere dominance. Following these sections, the methodology, findings, conclusions and implications for the current study will be reported.

The operational theory for the research on adult learning supports the premise that learning occurs as a problem-solving process and involves both the retention system (past experience) as well as future probabilities of use of new knowledge. In adult learning, there is first, attention provided by the mind to a perceived new idea. Attention is the active selection of, and emphasis on, one component of a complex experience, and the narrowing of the range of objects to which the learner organism is responding. Second, there is a shift from initial attention to the differentiation of how the new idea relates in the memory to what is known by the learner. Differentiation is the process by which a psychological field changes progressively from relative homogeneity to relative heterogeneity. Third, maintaining selective interest through the differentiation stage is essential to the willingness of the learner to remain open to structuring (or third stage). Structuring is the process of arranging dynamic interactions between or among differentiated aspects of a field in a pattern. Fourth, if a place is found for the new idea in the memory (either temporary or permanent), then the learner remains open to begin the fourth stage of analyzing the idea more closely to see what the idea is really all about and is a problem-solving process. Fifth, if the idea has real promise or is helpful to the learner, the new idea is integrated with the memory permanently. Integration is the process of bringing together and unifying patterns (structures, abstractions) into a whole and makes use of past patterns (memories through recall). Sixth, if how the learner finds that the idea can easily fit and the integration occurs, then the learner begins to abstract on the potential other uses of the idea both immediate uses and future uses and is defined as an idea or concept resulting from abstracting. Seventh, the uses of the idea become probability or possibilities of the future memory needs and becomes a part of the retention system to be acted upon or used again called generalization.[2]

Learning is a problem-solving process in which a new idea comes into the perception of an adult. The adult interacts with that idea mentally trying

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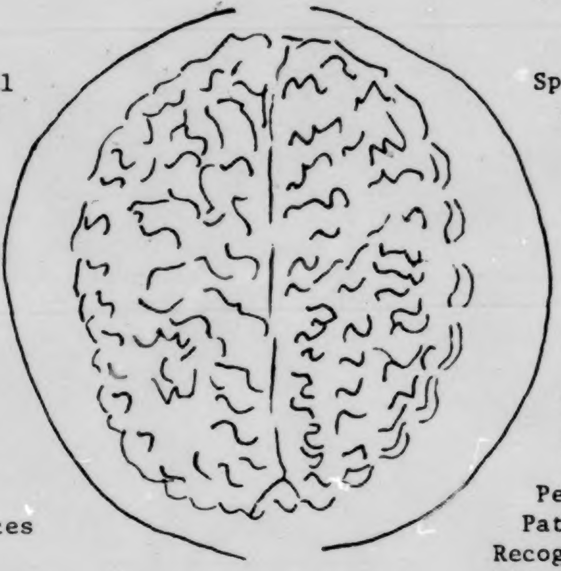
or deciding not to try to give the new idea a chance at entry into the memory. The adult makes a conscious decision to accept or reject each perceptual input. Learning is not ever all that new because there must be some way to relate new ideas to prior ideas. A whole new idea still needs to get a foothold in the mind based upon an old or prior idea. Sometimes learning is delayed or stopped, at any one of the seven stages mentioned, for lack of information or ways to go about involving the mind in the processes of differentiation or structuring. Some adults who recognize through prior learning both a gap or hole in knowledge or the lessons for new learning new knowledge or ideas are viewed as being more motivated to delay the process of learning in order to wait for guidance. Other adults, because prior experience did not provide them either knowledge or ideas about how to process new ideas or the need to learn new ideas, may stop trying to perceive or hold interest in the new idea.

This study began as a need to more carefully identify the way adults prefer to begin new learning experiences. It is based upon the premise that the selective perception involved in attention, considered here part of initiating learning, needs careful analysis so that motivation or continued interest in learning is maintained. If it is possible to uncover how adults prefer to recieve beginning information on new knowledge, an instructor can more appropriately select methods, speech patterns, stories, style and form.

Research on mind and brain interaction, the functions of the two brain hemispheres and their special forms of intellectual activity, concludes the two hemispheres in our brain have vastly different functions. The left hemisphere is verbal and thinks in words, clearly defined symbols, is active, calculating, organizes, and analyzes. While the right hemisphere thinks in pictures, is spatially oriented, perceives patterns as a whole and operates in the intuitive, emotional and receptive mode.[3]

Left Hemisphere
(Right Side of Body)

Right Hemisphere
(Left Side of Body)



Speech/Verbal
Logical, Mathematical
Linear, Detailed
Sequential
Controlled
Intellectual
Dominant
Worldly
Active
Analytic
Reading, Writing, Naming
Sequential Ordering
Perception of Significant Order
Complex Motor Sequences

Spatial/Musical
Holistic
Artistic, Symbolic
Simultaneous
Emotional
Intuitive, Creative
Minor (Quiet)
Spiritual
Receptive
Synthetic, Gestalt
Facial Recognition
Simultaneous Comprehension
Perception of Abstract Patterns
Recognition of Complex Figures

From the early work by Roger Sperry in 1973[4] to the present analysis in The Brain and Psychology (ed. M.C. Wittrock)[5], the premise of our understanding of mind-brain interaction has fascinated the research world. This author recognized the educational implications for brain research while attending a 1975 conference in Dallas. The emphasis was on "Educating Both Halves of the Brain." Ornstein and Herron[6] tested the participants at this meeting for their hemisheric preference using two shapes projected on the screen and supported their conclusion that though more specialized forms of tests could be used, the "two shapes test" had validity. Persons could be tested for preferences of behavior eminating from either hemisphere. The "two shape test" involved a selection of an analytic shape (grid) or a spatial shape (wavy circle shape) and was presented as a forced choice. The choice made provides instructors general information about student's hemisphere preference. The brain hemisphere preference selected reflects the side of the brain in use at that time. It can be concluded that the brain laterization has influence on the process of learning because choice of either shape indicates a preference for input specific to the brain hemisphere (as indicated by the shape) in use at the time, thus providing greatest impact on learning.

Following the conference, the author began immediately testing each class of students for their hemispheric preference. The objective was to ascertain how and why adults differ in the learning process. As an instructor it seemed important to know how adults take in and use information and if variable techniques could be used to promote effective learning.

Knowledge of the interaction between hemispheric preferences and the adult learning process could add to an instructor's understanding of what to do and how to speak during the inital meetings with students. It has always been clear that initial discussions with adults need to be concrete, meaningful and relevant for them to pursue learning.

The early rationale for the present research study began based upon hunch and some threads of brain research. However, the entire research project was given comprehensive support by the publication of The Brain and Psychology which is a compilation of research on the relationship between learning and brain functions by colleagues in neuroscience and cognitive science. Wittrock indicates, "The generative function of the brain has fundamental significance for educational psychologists who study learning and individual differences among learners. It suggests that they try to discover and to understand the information processing systems of learners. . .instead of trying to correlate environmental events and acts of teachers. The research implies it will be more productive to study how learners transform events of teaching and instruction into functional information. . .and the generative nature of learning and interplay between events and learning process."

"Learning involves many areas of the brain working in different patterns, the patterns depending upon the problem and its content. Attention to learning involves voluntary, internally controlled processes and the active construction of models of reality. . .more complex neural models than those produced by repetitions to stimuli."[7]

Thus the brain selects information to which it will attend and constuct models of reality for incoming stimulation. It is in the research by Kinsbourne that a relationship between attention and information processing in the cortical hemispheres that relates attention to learning was found. "Each cortical hemisphere of the brain voluntarily activates its attentional mechanism to attend selectively to expected stimulation from the contralateral side. With increasing age and development, different people learn different strategies for the shifting of attention to receive types of anticipated information. Sets to learn, verbal instructions, tasks, and objectives differentially induce different allocations of information to right and left hemispheric information processing strategies. When verbal instructions stimulate the cortical hemisphere appropriate for the nature of the task and for the type of information processing, the result is a facilitation in information processing."[8]

Early literature on brain modes indicated that each person has a predictable set of hemispheric preferences by age five. From what this author and Kinsbourne have found, the strategies implоyed by the brain are developmental, are influenced by experience and are situational and contextually significant. Though preferences may be set at an early age, most persons learn effective alternative means to cope with new information by shifting brain hemispheres.

This study began in 1975, and had as its purpose to ascertain how and why adults differ in the learning process because of the influence of brain laterization and preference for hemisphere strategies in the initial stages of the learning process. Using the "two shape test" reported earlier, the author tested most all university classes, seminars, workshops groups she taught during the first hour of class in the 1975-1980 period. There were 1239 total adults (aged 21-73, equally represented by men and women) in 49 groups tested during this period. Some groups were retested. Subjects taught in classes et.al. included psychology of adults, instruction of adult learners, introduction to and trends in adult education, cognitive styles and life span psychology.. The settings were a university classroom used by the adult education department and in gymnasiums, lecture halls, cafeterias, seminar rooms which were used for the seminars or workshops. The members in groups ranged from 10-151 persons. The seminars and workshops were held in several cities in Nebraska and the Mid-West. The author was the sole instructor. Though the scores reported here reflect only those groups tested by the author, other instructors in Southeast Community College in Lincoln, Nebraska, also tested their 12 classes.

The findings indicated that on the average 75 percent of all adult learners have right brain preferences during the attention and arousal stages of the learning process. In some cases this was 90, 86 or 66 percent etc. The use of 75 percent is a general rather than specific inference. During some classes, retesting showed that on the average about 25 percent of the right brain and left brain initial test preference changed to the opposite hemispheric preference. Changes in brain preference occured in the differentiation and structuring stages. A brief sketch of the testing outcomes on 17 groups appear in Table 1.

The findings of this long-term study indicate that on an average of 75 percent of the time adults coming into new learning experiences have right brain preferences. In the attention and arousal stages of learning the preferred learning mode is wholistic, pictorial and broad-based analysis or Gestalt-like rather than separate single concepts, piece by piece context. Some adult learners hold judgements and do not begin the differentiation learning processes until after wholistic statements have been made; this is witnessed by the changes in hemispheric preferences in retesting during the differentiation stage.

Table 1
Representative Group of Findings

Group	N	R %	L %	Group	N	R %	L %	Group	N	R %	L %
1	26	20(77)	6(23)	8	25	20(80)	5(20)	15	17	11(65)	5(29)
2	62	55(89)	7(11)	9	15	12(80)	3(20)	16	11	9(81)	2(18)
3	28	23(82)	5(18)	10	10	8(80)	2(20)	17	25	19(76)	6(24)
4	110	75(68)	35(32)	11	9	7(77)	2(22)	Sub-data	564	420(75)	123(23)
5	12	9(75)	3(25)	12	15	12(80)	3(20)				
6	60	45(75)	15(25)	13	26	21(81)	5(19)	.			
7	80	65(81)	15(19)	14	33	29(88)	4(22)	.			
								49	1239	931(75)	273(23)

Complete data available upon request.

The implications of these findings are multiple. Instructors or speakers need to realize that wholistic statements, broad based analysis and overview statements are appropriate context to initiate new learnings as opposed to small single context units of information. In this regard inductive (▼) reasoning rather than deductive (▲) reasoning is a more appropriate beginning in new learning approaches by instructors. In addition, the cognitive style dependency of new learners could be viewed as having a relatedness to the nature of the reasoning process in new learners. Piaget's concrete reasoning found to be dominant in adults in new learning settings (as opposed to abstract level of reasoning thought to be achieved by age 18) is conceptually related to the premise that until adults enter into the structuring and abstracting stages of learning whatever judgements in attention and arousal stage are held, that is, abstract reasoning is delayed. When tested early in new learning events learners appear at the concrete level. Wholistic learning, pictorial explanations are part of the concrete conceptual patterns found in right brain dominance.

The findings suggest that the preferred learning strategies and mind set with which adults enter learning experiences is opposite to the societal norm in which 85-90 percent of the population is left hemispheric dominant. Whether a symptom of learning, the climate or the level of education is not known. It is known that few persons change their preferred hemisphere during the learning experience.

Since most institutional and instructional practices are based upon social norms, this study suggests a reassessment of procedures, processes and methods in adult learning environments. It also suggests that there are alterations in brain functioning in learning environments which to this time have not been found in other life events.

These findings suggest further questions for research. Is hemispheric preference related to context of courses? Do adults in various stages of learning, as provided in the theory of learning process used in this study, make use of various hemispheric strategies? Do left brain instructors strategies inhibit learning in right brain learners? And, since the forms of reasoning implied in hemispheric preference relates to philosophical orientation to learning theory and nature of man, what learning theories have greater potential for adult learning. The research on these topics has only begun. Brain research offers new evidence that adult learning processes may be unique.

FOOTNOTES

[1] The Wilson Poster Session, 1980 AERC Conference; College Board Symposium on Adult Learning; Boshier and Prichard, "Citation Patterns of Articles Published in Adult Education," Adult Education Journal, 1979.

[2] Credit is given here to Robert D. Boyd for initial work on process, 1966.

[3] Trotter, Robert J., "The Other Hemisphere," in Science News, Vol. 109, April 3, 1976, pp. 218, 220, 223.

[4] Sperry, Roger W., "Left Brain, Right Brain," in Saturday Review, Sept. 9, 1973, pp. 30-32.

[5] Whittrock, M.C., The Brain and Psychology, New York: Academic Press, 1980.

[6] Robert Ornstein & Jeanne Herron, both researchers in brain preferences and learning. Ornstein has published widely in hemisphere.

[7] Wittrock, op. cit., pp. 397-398, 376, 388-389.

[8] Kinsbourne, M., "The Control of Attention by Interaction Between the Cerebral Hemispheres," in S. Kornblum (ed.) Attention and Performance IV. New York: Academic Press, 1973.

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ASSESSING THE IMPACT OF ADULT BASIC EDUCATION: SOME METHODOLOGICAL CONSIDERATIONS[1]

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INTRODUCTION

Accountability was the watch-word of the 1970s and the next decade promises more of the same. While taxpayer revolts are hardly new, the results of the 1980 election removed any doubt regarding the fact that people are unwilling to pay for social services unless they can see some specific results. This, coupled with the usual arguments for evaluation, clearly reveals that "business as usual" in adult education has ended. Educators must defend their programs based on documented impacts. The literature suggests, however, that the field of adult education has far to go before drawing too many generalizations regarding program results, particularly in ABE/GED programs.

This paper examines the impact of evaluation literature in adult basic education and briefly reports on a study in Maryland that attempted to build on previous research. It also looks at some historical developments in the field, analyzes several of the conceptual and methodological issues facing adult educators concerned with assessing results, and concludes with some implications for future impact studies.

IMPACT RESEARCH

Evaluation research in the United States goes back to at least the mid-19th Century when the Federal Bureau of Education began reviewing the allocation of educational resources (Anderson, et. al. 1975: 141). It was not until the work of Ralph Tyler, however, that the focus really shifted from inputs to results (Anderson, et. al., 1975 : 143). Research on literacy programs also goes back to the thirties, but much of this early work concentrated on developing appropriate teaching methodologies and materials, and removing obstacles to student progress (Cook, 1977). There appears to have been little emphasis on program evaluation or on impacts apart from student progress toward some learning objectives.

Recent studies on ABE/GED have taken three forms: 1) descriptive studies, 2) process studies, and 3) impact studies. Descriptive studies report the facts--who the learners are, where they come from, the kinds of classes that are held, the number of resources allocated. Hunter and Harmon's recent book falls into this category (1979). Although informative and necessary as a step toward generalization, descriptive studies fall short of assessing actual impacts.

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[1] This study was supported by the United States Department of Education through funds administered by the Maryland State Department of Education under Section 309 of the Adult Education Act. The opinions expressed herein do not necessarily reflect the positions or policy of the U.S. Department of Education or the Maryland State Department of Education

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Analyses of adult basic education processes have often been administrative in nature and not widely used, apart from trying to improve instruction or implementation. Mezirow, et. al. (1975) moved toward generalization but their primary concern was not to assess program results. Some micro-level studies in recent years have, however, focused more specifically on program impacts. The Appalachian Adult Basic Education Demonstration Center has conducted numerous studies, but their findings are not widely available. Other studies by Kent (1973), (Parker, 1976), Becker (1976) and Boggs (1979) illustrate this shift from description and analyzing process to measuring results, and established the framework for an impact study in Maryland.

The Maryland study designed to assess the perceived impacts of ABE/GED programs in the state, involved personal interviews with 120 program participants from 26 randomly selected classes in three counties. The data generated by the instrument - developed through a review of previous studies, group discussions with ABE/GED participants and conversations with teachers and administrators - were supplemented by case studies and classroom observation.

ASSESSING IMPACTS IN ABE/GED PROGRAMS

Several characteristics of the ABE/GED population and programs affect the nature of impact studies:

1. Nature of the ABE/GED Population -- The ABE population is so diverse in backgrounds--sex, age, ethnicity, employment status, educational level, etc. --that it is virtually impossible to postulate a "typical" participant. They also differ substantially in expectations, level of participation and time invested in the program. One individual may obtain a GED following a single class while another spends several years and never goes beyond the entry level. In the Maryland study, a contractor reporting on annual income in six figures said he wanted a GED to "prove that he could do it", while an eighty year old woman enrolled in an ABE course to "keep her mind alive". This variability limits the extent to which one can meaningfully generalize about ABE/GED participants.

2. Nature of Instruction -- ABE/GED instruction is highly individualized, particularly in small centers, and the materials covered in each class are very diverse, depending upon the needs of the students and the abilities of the teachers. Classes working at the same level may utilize totally different resource materials. One may focus on current events and voter registration while another concentrates on resumes and job applications. This variability reduces the utility of specific tests of knowledge acquisition for impact analysis.

3. Combining Research and Practice -- Perhaps no factor is more responsible for limiting the quantity and quality of impact studies than the tenuous relationship between research and practice. Time and resources utilized for evaluation necessarily reduce what is available for the delivery of services. Time required to develop and implement the Maryland study was viewed by some practitioners and participants as wasted and a serious imposition. Many are suspicious of research for the good reason that much of what has been done has had little apparent impact on practice.

CONCEPTUAL ISSUES IN IMPACT RESEARCH

A review of the literature and the Maryland experience suggest several conceptual issues that adult educators must consider within the context of impact evaluation:

1. Perceptions and Impacts -- Most impact studies in the literature used personal interviews or mailed questionnaires in which respondents were asked to state whether they believed that their lives had changed as a result of participation in ABE programs. This is a limitation of the Maryland study as well. More conceptual sophistication is needed before one can say conclusively that one's measure has identified actual impacts. Some participants may inappropriately ascribe changes in their lives to participation which others may overlook the relationship between participation and change.

2. Measuring the Measurable -- In a 1977 dissertation reviewing a number of evaluation studies, Law suggests that researchers choose indicators for their own convenience rather than because they most accurately reflect program impacts (1977). The result is a bias toward quantitative variables at the expense of the qualitative indicators--changes in self-concept, feelings of personal worth, willingness to take risks, affect on one's family, etc. More conceptual work is needed in defining program impacts.

3. Relationship of Means and Ends -- Conventional wisdom suggests that participation leads to a reduction in welfare rolls, increased employment, job mobility, increased participation in continuing education, etc. The findings of various studies, on the other hand, reveal that many participants have small, short-term goals such as learning to read a bus schedule, sign a check, or follow street signs. The Maryland study, like most, could not differentiate between instrumental means and ultimate ends because there was no baseline information available to indicate why people originally signed up for the program.

4. Diachronic Perspective -- In spite of the concern with continuous monitoring of adult education programs, most evaluations are retrospective, as can been seen in studies by the University of Massachusetts (1970), Richardson (1974) and Parker (1976). Kent, on the other hand, attempted to assess longitudinal changes but this is an exception (1973). To illustrate the problem, if employment is an indicator of program impact, for example, participants in an ABE/GED program may not find jobs in times of high unemployment, even though the program was successful in increasing the employability of the participants.

5. Levels of Analysis -- Most impact studies reported in the literature focus on changes at the individual level rather than measuring the total impact of ABE/GED programs on society. Malcolm's West Virginia study went beyond this to ascribe a dollar return to the economy as a result of the participation of 76 persons in an ABE program (1970). Though difficult to administer and harder to measure, this approach is a significant step in the direction of accountability, but more work is needed in the area of cost/benefit analysis.

6. Participant Involvement in Evaluation -- That the emphasis upon participant involvement in adult education does not extend to participation

in evaluation is certainly ironical. Although program participants are the objects of study, it is only in exceptional cases where learners are involved as the subjects of the investigation. Parker, for example, used a panel of "experts" to develop her instrument (1976). Hall, on the other hand, argues convincingly that people must be participants in conceptualizing and carrying out research in which they are being studied (1978). The Maryland study attempted to involve ABE/GED participants in conceptualizing program impacts through group discussions but much more research is needed in how to implement this process.

METHODOLOGICAL ISSUES

The literature and the Maryland study suggest several methodological issues that must be considered as well.

1. Limitations of Survey Methodology -- The limitations of survey research have been too well documented in the literature to require further elaboration in this paper. Surveys remain, however, the preferred approach to studying impacts in adult education. Parker (1976) and Ferguson (1969) used mailed questionnaires. Boggs used telephone interviews (1979). While this can lead to larger samples for the same investment of resources, a great deal of data are lost without personal encounters. The Maryland study used personal interviews but this was time consuming and costly, so alternatives must be found.

2. Frames of Reference -- A striking fact revealed in a review of ABE/GED impact studies is that the instruments are generally based on fixed-choice questions. These are developed for the convenience of the researcher, and as the anthropological literature suggests, may impose an alien frame of reference that has little relationship to the world in which the respondents live. The Maryland study attempted to compensate by including many open-ended questions, case studies participant observation and group discussions, but these generate problems of reliability.

3. Adequate Controls -- The reliability and validity of the findings of most impact studies would be enhanced through the use of adequate controls. Boggs (1979 and Shipp (1977) used control groups which they compared with participants. Kent conducted pre-and post-test (1973) while Becker compared differences between groups of ABE participants (1976). While the argument for the use of control groups is powerful, the trade-off is the additional commitment of time and resources that is then required.

4. "Dropouts" and "Completers" -- Many studies reported in the literature considered only persons who were participants in an ABE/GED program at the time of the study (Lilley, 1972; etc.). The same was true in the Maryland research project. While a number of individuals did not complete the "official" program, they may nevertheless have met their own objectives so were no longer around at the time of the survey. A strategy is needed that would include program leavers who actually achieved their original goals for participation.

5. Developing Trust -- Many interviewees in this study were unclear as to its exact purpose, and frequently assumed that there was a direct correlation between the results and the extent to which the program would be supported in the future

Although the purpose of the study was carefully explained, it was difficult to establish the high level of rapport required for persons to share their innermost thoughts and feelings.

IMPLICATIONS

A review of the methodology employed in the Maryland study reveals many of the same problems of other impact studies reported in the literature. There are several implications:

1. Evaluation Should Be Built Into Programs -- While external evaluation may enhance objectivity, it also increases the difficulty of carrying out a viable study. Where teachers and administrators are commited to monitoring their own programs on a regular basis through the creation of appropriate mechanisms for that purpose, the likelihood of being able to assess actual impacts is increased. This assumes, however, that resources will be allocated for that purpose and that those who evaluate will be rewarded.

2. Longitudinal Studies Necessary -- The possibility of sleeper effects suggests the need for synchronic studies that measure changes over time and that can assess their permanence.

3. Innovative Designs -- Impact studies in the literature tend to utilize similar methods and therefore share common limitations. Little work has been done with alternatives to survey research that, nevertheless, include appropriate controls. This assumes further that instruments be devised that go beyond perceptions to measure actual impacts of ABE/GED programs.

4. Participant Evaluation -- Assuming that experts have a monopoly on research strategies contradicts the very premise upon which adult education stands. More creative work is needed to develop the mechanisms through which this can be translated into practice.

5. Training in Evaluation Methodology -- To implement an evaluation strategy through which ABE/GED programs are continuously monitored would require the training of teachers and administrators in impact analysis.

CONCLUSION

Although evaluation of program impacts is becoming increasingly important in ABE/GED programs, adult educators will have to move beyond traditional survey research to more innovative approaches that reflect the unique character of this population and generate reliable and valid conclusions regarding results. If ABE/GED programs are to receive the funding they require, their contributions to society must be demonstrated.

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A RURAL VILLAGE IN A CHANGING WORLD: MECHANISMS FOR SURVIVAL

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INTRODUCTION (problems and theories). This project is an interdisciplinary field research/historical study of rural development within the context of community values and social change. The project focuses on a rural village and its surrounding environment in a relatively isolated, economically-distressed area of the Middle West. Employing an interdisciplinary research approach, this study examines: (a) the relationships existing between community values and social goals, and (b) the implications for education in the context of social, demographic, and economic change. The analyses concern the relationships existing between the meaning of work, educational access, community values, and the quality of life. The research acknowledges certain rural work phenomena, such as the income-producing roles of rural women despite some regional differences. It is assumed, however, that characteristics of work and leisure may have wide variability even within the same locality. Another assumption is that social and economic change, as well as meaningful work and educational opportunities or their absence profoundly affect the quality of human lives.

Like many other rural villages across the nation, "Franklin"* has been beset by economic and demographic change. The population has dwindled since the thirties from 2,000 to approximately 250 people. There are serious economic and demographic problems related to health care, transportation, education, employment, and community values. Fifty-six percent of the villagers, for example, are over age 46; 38 percent are 65 years or older;** 64 percent of the villagers are women. Most villagers, primarily low-income and retired, must travel many miles if they are to receive medical or educational services. There is no public transportation here. Despite hardships, however, and in the absence of educational or employment opportunities in the village, residents still value their rural way of life, which they frequently define to outsiders as a "caring environment" founded on mutual support.

But the social costs of retaining rural values are high. An active voluntary support system, however valiantly it struggles to furnish rescue operations and other services, is overburdened by demands on the time of volunteers. Because of rapid change and the mechanization of agriculture, there are few jobs. Consequently, few young people (who might otherwise perform service tasks) remain in the village after graduation from the regional high school. Parents, however, continue to hope that their own children will be among the few who do stay. Reflecting local values, schools therefore teach young people rural skills and rural values. The young, consequently, have little preparation for the urban employment reality that they must ultimately face. Despite continuing energy expended on survival needs, unemployment and underemployment is high accompanied by morale that is low. The accident of rural birth thus appears to eliminate equality of opportunity within the greater society.

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*Pseudonym.

**Compare with the national average of 11 percent.

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At the same time, it has not been established that rural education or rural life per se are inherently inferior to urban education and urban life (as some writers contend). Instead, there is a widespread agreement among educators who believe that smallness, particularly when considering such variables as class size, is frequently preferred. There seems to be little interest, unfortunately, in providing improvement in the quality of smallness found in rural education despite an (and possibly growing) affinity for rural living and rural values expressed from all walks of life.

This study, therefore, does not seek to find ways to destroy the rural systems of teaching and learning. It is not assumed that the rural way of life or rural schools are inevitably doomed or that rural residents must be urbanized as quickly as possible. However, it is recognized that the acquisition of skills is important for villagers in order to enable the rural resident to compete equitably with urban residents for educational and employment opportunities wherever these opportunities are found.

The overwhelmingly one-sided placement of employment and educational opportunities in urban areas places the rural resident at a distinct disadvantage. Rather than seeking solutions for remaking the rural resident, however, this study examines the rural community, alert to possible exchanges from rural to urban settings as well as from urban to rural settings that may improve opportunities for all people.

The cherished rural notion of local control of the school, for example, is currently being compromised in "Franklin" by the absence of resources which might allow diversity and real choices for students. A consequent battle is ensuing over the consolidation of rural schools in the "Franklin" area. The attention, however, seems to be focused in the minds of state officials on such variables as distances of bus routes, the size or newness of school plants, the number of available microscopes, or instructors of French. Little attention has been aimed at the more important educational aspects such as rural community involvement in education, intergenerational exchanges of knowledge and tradition, heterogeneity of social class, the community itself as an educational resource for people of all ages, or the exploration of cooperative efforts to expand curriculum offerings.

This study's emphasis, therefore, is on basic research directly preliminary to more applied research that may benefit the community directly. The project explores some of the ways social and cultural forces interact to influence economic variables and the educational process. The study also seeks to explore ways in which the educational process might be employed to facilitate desired change, e.g., via such instruments as community cultural and skills-development centers.

OBJECTIVES. The primary objectives of the study are to determine: (1) how changing social and economic forces affect farm and non-farm rural people; (2) what are the effects of unemployment and underemployment on the quality of rural life; (3) how the rural work ethic responds to social change with respect to volunteerism or "unpaid" work; (4) what are the possible roles of education (both formal and informal) and training programs with respect to realistic expectations and the quality of life in rural areas; and (5) to increase understanding of employment and cultural issues that may result in the expansion and improvement of both work and educational opportunities in rural areas; and (6) to develop a methodological model which may be useful to social science research concerned with cultural and regional variables, which will ultimately improve educational equity and foster equality of opportunity.

SIGNIFICANCE. This study will facilitate a better understanding of rural development issues which may result in improved work opportunities and meaningful education. Results of the research have the potential to improve educational access and economic opportunity, and to provide rural people with more control over their social, cultural, and economic destinies.

Benefits to the fields of education and community development may be found in the potentially improved understanding of variables concerning social change, rural life, how society and culture influence and direct the educational process, and how community values affect the quality of life. Other benefits may be found in improved understanding of regional differences with respect to education and work opportunities. Increased knowledge of how cultural contexts and teaching and learning processes interact may also help educators and job trainers to develop programs that will more effectively serve the needs of all groups of people.

METHODOLOGY. The research is conducted in four distinct, yet overlapping phases: (1) demographic mapping, (2) historical research, (3) field work, and (4) analytic induction using constant comparisons of data as they are collected.

1. Demographic and Structural Mapping. The first phase of the work, in order to provide structural understanding, studies demographic data and preliminary sociological profiles. Such information obtained from census data, vital statistics, county records, and key informants provides an ethnographic "map" of statistical variables, such as age, gender, home ownership, economic statistics, and occupational and family life characteristics.

2. Historical Study. The historical work focuses on key factors pertaining to the cultural, economic, political, and social development of the village.

3. The Field Work. The field work consists of participant observation of and interaction with community members. Also included are about thirty interviews with long-time village residents. Analyses of the field work data, along with the historical and demographic material employ a shared-themes technique to examine the historical past, along with the present residents' perceptions of the future.

4. Analyses. Qualitative analysis compares events (e.g., such as rites of passage) applicable to a category; integrating categories and their properties where appropriate; delimiting theories; and presenting initial data for subsequent research. Each event is compared to others, thus providing internal development and changing relationships with other categories as well as providing new support for theoretical assumptions. Anselm Strauss and Barney Glazer have referred to similar procedures as "constant comparative" research methods.

DISCUSSION (conclusions and implications). This research underscores the belief that the social environment is a powerful force in human development. Preliminary research indicates, furthermore, that the rural village is largely an adult community, comprised of retired farmers and formerly rural people who were socialized in rural settings. Rural residence, for the most part, appears to be one of choice, chosen because it offers what villagers consider to be a preferred way of life. The communitarian ethic, however, both retards development opportunities (Built-in expectations of rural residents require social responsibility--service to the community.) and also provides vital mechanisms for individual and community survival in the face of social change. One can depend upon one's neighbors for assistance; at the same time rural reciprocity is expected at all times.

Community values differ from one cultural setting to another. This study's findings indicate that rural people do not measure the quality of their lives against that of urban dwellers, but rather they compare the present rural reality with that of their rural past. The rural work ethic, (devoting one's time and labor for the service of the community), likewise, rather than material wealth, determines social status in "Franklin."

Village independence, however important its role in cooperative activity, even in the absence of social services, also acts to shun needed outside assistance to which all Americans are entitled. Meanwhile, the demands upon local volunteers is great. For example, women who are regarded officially as dependents because their work produces no wages, nevertheless, are the village support system as well as the mainstay of the rural work force. Farming people also rely on mother's butter and egg money to pay winter bills. Poultry and home-grown produce from the garden eliminate some of the high food costs, therefore weighing heavily in measures of community values. The voluntary support system (based on a service-to-others pilosophy) as well as rural food production and survival skills are dependent for their existence upon an exceedingly effective, but nonformal education and socialization network.

Even though each rural community is unique, demographic factors of rural villages are frequently similar. Women comprise a higher percentage of the older adult population nationwide because they live longer than men do. Because most villagers are adults, older women comprise a large portion of many rural communities. The absence of the young, however, along with persisting gender role expectations, presents problems of increasing severity for aging rural residents despite the communitarian ethic. Many rural tasks require endurance and strength that only the young possess. Therefore the relationships existing between gender, community values, and demographic and economic variables have national as well as regional importance.

The educator's task is not merely to discover how to keep the young on the farm, or how alternative work patterns may be employed, or how the resources of intergenerational sharing might be preserved, or how to provide needed services to the elderly, even though each of these is important. Rather, the central issue involves improving the quality of life in rural areas, by providi and facilitating access to meaningful work and educational opportunities. Despite the real and alleged shortcomings of small communities, the rural or semi-rural environment is still highly valued by many young families as well as by retired and semi-retired workers from overcrowded and crime-plagued cities.

A rural community's values and the meaning of work, furthermore, are closely related to the high degree of social participation (revealed through voluntary group activity). Therefore, a better understanding of these relationships will help in the discovery of community resources both rural and urba which may be developed or expanded into meaningful work and educational opportunities.

Even though the research is still underway, some preliminary conclusions can be drawn. For the most part, village dwellers believe that community asset outweigh the socioeconomic problems. Outsiders, however, inevitably consider socioeconomic problems of such magnitude as to negate any real benefits from the communitarian variables. These conflicting urban vs. rural perspectives of the social reality result from the complex ingredients of individuals' life experiences. It is not enough to study the values of a place, but also it is important to discover who are the residents and how they came to be residing there. For example, the loyalty small town residents are known to exhibit toward their village (particularly in the Middle West which was settled late) is frequently traceable to the original settlers' reasons for selecting that particular site.

The educational implications of these preliminary findings indicates that a greater appreciation for differences in preferred lifestyles should be encouraged. Humanistically oriented adult educators recognize the importance of social and cultural environment to the quality of life and will seek to build upon that which is considered by a community's actors as valuable, recognizing the wide variability in perceptions of the social reality. Finally, the rural village may have vast potential for residential living and lifelong learning in decades ahead, for community-based educational programming, for promotion of rewarding human development, for innovative educational practices, and even for providing models for the development of meaningful work and educational opportunities that may result in the improvement of the quality of human lives.

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THE IDEOLOGICAL PARAMETERS OF ADULT EDUCATION IN ENGLAND 1925-1950

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English adult education has frequently been seen as a medium for social change and this has arguably provided it with its major dynamic. The desire to reform or fundamentally change society - perhaps to provide a working class ideology to counter the false consciousness of bourgeois society - has attracted many people to adult education. But they have had to contend with a liberal-bourgeois hegemony which extends to education. Marx and Engels claimed,

> "The ideas of the ruling class are in every epoch the ruling ideas, i.e. the class which is the ruling material force of society is at the same time its ruling intellectual force."(1)

This would suggest that adult education is merely part of the control mechanism for imposing the ruling class hegemony. In England, the exercise of control was made easier after University and 'voluntary-body' adult education became publicly funded in 1908. This paper investigates the extent of political freedom in this sector of English adult education between 1925-1950. Its ideological perspective (characterised by the political ideas of R.H. Tawney, William Temple, A.D. Lindsay and G.D.H. Cole) is contrasted with that 'beyond the Pale'. Empirical evidence is based on published and unpublished writings and oral evidence from numerous adult educationalists and students and the archives of education bodies and central government. (2) The conclusions are still tentative but appear generally to support the basic hypothesis. This paper is intended to contribute to the debate about whether and to what extent adult education can be a medium for changing society rather than reinforcing existing social norms.

Nineteenth century England had witnessed many experiments in adult education but generally they had not extended liberal academic education beyond the bourgeoisie. During the first decade of the twentieth century, a new adult education movement was born, due very largely to the skills of Albert Mansbridge who founded the Workers' Educational Association in 1903. The primary objective of the WEA was that it should make university education available for working class men and women whose social condition had effectively debarred them from the educational opportunities enjoyed by the middle class. The original intention was that the WEA should make existing University Extension courses available to working class groups but it was found impossible to reduce the cost to a realistic level for working class people unless they recruited literally hundreds of students, in which case it was impossible for the lecturer to offer the tutorial guidance which the scantily-educated proletariat needed. Mansbridge and his influential friends worked hard to overcome this problem and in 1908 came up with a report which recommended the establishment in industrial towns of a network of tutorial classes "specifically adapted to the needs of workpeople" and which would be limited to a maximum of thirty students and be of at least two years duration. (In practice, tutorial classes normally ran for three years). This was only possible if the WEA and the newly formed Tutorial Class

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Movement obtained financial aid to supplement students' class fees, and it was perhaps Mansbridge's major achievement that he secured grant aid from the (government) Board of Education. (3)

The support for the new adult education movement at the Board of Education and Oxford University stemmed from a desire to contain the growing power of the burgeoning Labour Movement. The prospect of working class political power awakened in the ruling class a recognition of the need to educate the workers in responsible democratic citizenship. (4) The "changes which were taking place in the constitution of English society and in the distribution of political power" invested "the appeal of workpeople to the University .... with an urgency which it may be held formerly not to have possessed." The consequence of these changes was

> " .... both to foster a ferment of ideas in classes where formerly it did not exist and to make it imperative that they should obtain the knowledge necessary to enable them to show foresight in their choice of political means .... The Trade Union Secretary and the 'Labour Member' need an Oxford Education as much, and will use it to as good ends, as the civil servant or the barrister. It seems to us that it would involve a grave loss both to Oxford and to English political life were the close association which had existed between the University and the world of affairs to be broken or impaired on the accession of new classes to power." (5)

Within a few years most of the universities in England and Wales had followed the lead of Oxford in setting up joint committees with the WEA to promote tutorial classes. But much of the dynamic in the early years came from Oxford, and particularly from Balliol College which provided many of the tutors and also an ideological framework for the new adult education movement. (6) Balliol had a "peculiar intellectual horizon of its own" (7) - combining devotion to the cult of intellectual excellence with social concern and a particular interest in working class education - which derived from a long tradition stretching back to the days of Benjamin Jowett and T.H. Green. This tradition embodied a social conscience or cautious radicalism with a strong sense of noblesse oblige (desiring to extend to the working class the liberty to adopt liberal values and practise bourgeois virtues) and a commitment to a life of action: to praxis. In the late nineteenth century this tradition had led many Balliol men into public service (particularly the Indian Civil Service). In the early years of the twentieth century, this somewhat paradoxical combination of elitism, intellectual quality and commitment to public service and social justice produced an increasing number of young men wishing to associate themselves with the WEA and the Tutorial Class Movement. In this way the Balliol philosophy provided a range of values or an "ideological agenda" which became embodied in English adult education. So many of the participants shared them and took them for granted, and perpetuated them in their own teaching. As one of their biographers has said, "It was as if an agenda existed ... and the unity of the group arose from the agenda." (8) Not only a unity, but an ideological uniformity arose from that liberal-Balliol agenda - an ideological orthodoxy which has permeated adult education during much of the twentieth century. This orthodoxy is largely epitomised by the philosophies of four of English adult education's colossi - William Temple, R.H. Tawney, A.D. Lindsay and G.D.H. Cole. Of course, there were other intellectual influences and ideas encompassed by the movement, but the social and political philosophy of these four scholars represents the mainstream social and political framework of English adult education.

Cole represents one extremity, and therefore should be looked at separately. Temple, Tawney and Lindsay can be viewed together as representing the broad social democratic orthodoxy. (9) They shared a similar upper-class social background and Christian-socialist heritage. They all experienced the Balliol tradition (Temple and Tawney as undergraduates and fellows, Lindsay as fellow and later master of the college) and acquired Balliol social consciences. In their different ways they all became dedicated if critical supporters of the British Labour Movement. They shared a deep commitment to freedom, equality and democracy as fundamental human values and expressed considerable faith in the British democratic system which they nevertheless wished to reform in order to increase the opportunities for personal liberty and self-fulfillment which were the very cornerstones of their philosophy. This led them to favour an egalitarian, classless society, devoid of social and economic privileges. Socialism was not an end in itself, but a means of extending essential human rights to all citizens and abolishing privilege. A collectivist state would provide an environment free of privileges, in which everyone could fulfil his potential in voluntary, free association and fellowship. Free will was also a vital ingredient, investing education, discussion and persuasion with the means of making progress. Persuasion rather than armed revolution would create the better society and adult education was envisaged as a vital part of this process of change. This fundamental tenet of gradualist, non-revolutionary, social-democratic philosophy endowed adult education with its deep sense of social purpose. It was a vital part of the medium of social progress. This faith in education implied also an essentially pragmatic and empirical approach. Although Tawney came close in his historical writing to adopting a Marxist perspective he attacked the "servile cult of the inevitable" and they all rejected the deterministic aspects of historical materialism, and were particularly opposed to democratic centralism and the authoritarian nature of Soviet communism. Ultimately, as Tawney's biographer points out, they belonged to "the non-Marxist ethical socialism of the Labour left .... with its lurking hospitality to all aspects of the London Establishment." (10)

G.D.H. Cole (11) shared many of the attitudes of Temple, Tawney and Lindsay, as well as the Balliol background. He was a life-long, if frequently critical, member of the British Labour Party and fundamentally democratic, although he visualised democracy as an intricate pattern of functional representation and self-government in every aspect of life (guild socialism) and was less tolerant of the parliamentary system. Cole also regarded the opportunity for personal liberty and self-fulfillment as the ultimate objective of socialism. It would create an environment which allowed man to be master of his own destiny and live a "free and full life" - values he learnt early in life from William Morris. His was a "socialism which valued tolerance and diversity .... fiercely libertarian and actively democratic." (12) He vehemently disliked the crudely illiberal versions of historical materialism and the democratic centralism of Leninist-Stalinist communism. Yet he was never anti-Russian or anti-communist. He was always seeking reconciliation on the left and is now regarded as having occupied an honourable place in the Marxist tradition: a bridge between the libertarian strand of classical Marxism and the post-1956 New Left, across the abyss of the totalitarian decades. But Cole did exhibit less acceptable attitudes which made the Establishment uneasy. (13) During and after the first world war he was associated with revolutionary syndicalism (not altogether justly) and frequently wrote about the necessity or inevitability of class conflict and "violent collision." He scorned the idea that capitalism would allow itself to be atrophied by education, discussion and persuasion! However, he always preferred the idea of revolution without chaos and sought ways to avoid or mise the catastrophe of physical revolution, such as by 'encroaching control' whereby workers would appropriate by stealth as many as possible of the functions of capitalism before the final, inevitable collision; or (after the collapse of the Labour Government in 1931) the somewhat unrealistic concept of constitutional revolution which merely required an Emergency Powers Act to enable a Labour government to pass socialist legislation unmolested by the powers of capital. He cannot be labelled a revolutionary or a reformer; Marxist or social democrat; individualist or collectivist. He was constantly trying to bridge the divides (for example, between Russia's planned economy and Keynesian/New Deal economic theory). He operated at two levels simultaneously - attempting to formulate a practical political programme or alleviate immediate social needs at the same time as propagating theories of utopian socialism. This dualism or bifocalism gave rise to intellectual tensions and ambiguities - reflected in M.B. Reckitt's famous rhyme, " .... With a Bolshevik soul/In a Fabian muzzle/ Mr. G.D.H. Cole/ Is a bit of a puzzle." (14)

Despite the sometimes worrying puzzle, Cole was ultimately acceptable because his ethical socialism was a product of the liberal-humanist tradition of western civilization and he shared the same liberal values as many of his protagonists. Both "spoke the same language of liberty and the individual" (15) and therefore his eccentric revolutionaryism could be tolerated. On occasion, the statements or activities of Cole and those in the adult education movement who shared his views, strained the tolerance of the ruling Establishment to the utmost - more so than the views of Temple, Tawney and Lindsay. But ultimately, in the period between 1925-50, when Marxism and Communism were perceived as virtually synonymous with Leninist-Stalinist totalitarianism, their ethical socialism not only displayed a comfortable affinity with mainstream British liberal-democratic tradition; but also seemed to offer an invaluable alternative to revolutionary socialism for the socially idealistic and economically exploited. It provided an alternative dynamic of social purpose which "helped prevent radical people following the Communists into the political wasteland." (16) It was a barrier to, or a means of diverting or subsuming, an alien ideology.

Funds were therefore made available to the universities and the WEA as adult education "responsible bodies." These bodies were doubly responsible - not only for making the prescribed educational provision but also for the ideological orthodoxy of that education. But his orthodoxy was tolerantly defined. Provided it was democratic, gradualist and committed to persuasion rather than violent revolution, it could be as radical as it pleased because it could be subsumed into the ebb-and-flow evolutionary tradition of the English liberal establishment. It was not felt to fundamentally challenge the hegemony of the ruling class. It was tolerated by all but the extremists of the right who failed to understand how the strength and vitality of the liberal tradition could comfortably withstand and smother this bastard of its own blood; and by the extremists of the left who understood only too well, and did not like what they saw.

There was an ill-defined, liberal ideological boundary beyond which the publicly-funded adult education movement was not expected to stray. A mass of empirical evidence (of cautions and restraints) helps to define the ideological parameters. The avowedly 'independent' Marxist adult education of the National Council of Labour Colleges was undoubtedly beyond the Pale. (17) In 1925, Lord Eustace Percy, President of the Board of Education, declared war on the NCLC

Secretary: " ... In fighting you we are fighting ... a battle against spiritual wickedness. The doors of our schools are open to all men of goodwill of every class and creed, but they must be closed against you, for you carry with you a poison that stunts the mind." (18) This outburst was part of a campaign which the Board of Education and the local government bodies (which also grant-aided adult education) were conducting against the WEA, to prevent it from joining forces with the "poisonous" NCLC in a scheme sponsored by the Trade Union Congress to provide education which would specifically equip the workers for "the work of securing social and industrial emancipation." (19) In the protracted struggle, the Board of Education and the Local Education Authorities (LEAs) expressed the fear that the WEA had overstepped the bounds and had committed itself to an unacceptable form of Marxist propaganda. During the summer and autumn of 1925 they exerted relentless pressure on the WEA, backed by a threatened withdrawal of funds, to persuade it to dilute the agreed scheme. They also sought some arrangement which would enable the Board to use the LEAs to supervise the WEA more closely without taking direct control of the Adult Education Movement (which it was feared would drive it into the arms of the ideologically uncontrollable labour colleges and trade union movement). (20) Although the scheme never came to anything, the episode revealed the limitations of the WEA's political independence. Its vital funds (and therefore its existence) depended on its 'impartial' blend of education not unduly upsetting the social status quo.

In the years of depression between the general strike (1926) and the outbreak of the second world war, the adult education Responsible Bodies did not very often step far out of line with social and political orthodoxy but from time to time they did arouse suspicion by accidentally or clumsily stepping out of bounds or stumbling into the firing line of political controversy. (21) Although many minor controversies undoubtedly went unrecorded, there are a number of examples in the central government files of accusations, complaints, discreet enquiries and equally discreet warnings. The 'offences' consisted of too blatant expressions of support for socialist or communist ideas or for the Soviet Union, or a Popular Front or the trade union movement, or against British imperial policies. Tutors who associated with political extremists, exhibited 'bohemian' social habits, made intemperate or controversial statements (or allowed their students to do so), engaged too openly in political activities or identified the adult education movement too specifically with the working class, likewise came under suspicion. It was not a story of constant conflict. For most of the time the parameters were appreciated by all concerned. The incidents that did occur were often petty and of little consequence. But they were just serious enough, and just frequent enough, to ensure that temperance, responsibility and judiciousness (to use the terms favoured by the authorities) did prevail.

In the early months of 1940, government inspectors prepared a report on the problem of controversial topics in adult education, pointing out the inflammable nature of many topics, "especially in view of the left wing character of so many of the lecturers and their disciples." They warned the Responsible Bodies to ensure that their tutors were not only qualified in scholarship but were also "judicious." The Responsible Bodies' Central Joint Advisory Committee issued its own statement on "The Handling of Controversial Subjects in Wartime" (almost certainly drafted or vetted by the Board of Education). It warned against "any attempt at objectivity or detachment ... which might seem unpatriotic." The government inspectors were particularly suspicious of the mass of informal adult education which mushroomed in wartime conditions, which they considered especially intemperate and politically unreliable in comparison with the traditional classes over which a benevolent control had long been established.

The cold war also brought McCarthyism to civilian adult education. The desire to protect western democracy against the communist threat led to investigations and tensions, especially in the growing sector of trade union education. Pressure was exerted to conform to a much restricted consensus and a much narrower definition of acceptability. Controversy in the WEA journal (22) questioned whether Marxists (particularly members of the Communist Party) could be trusted to teach objectively and this attitude surfaced in numerous extramural departments. It was widely considered justifiable to proscribe communists because they were committed to destroying democratic freedoms. Communist or "fellow traveller" tutors (full and part-time) were restricted and in some cases dismissed. Applicants for new posts were asked about their political affiliations. In the WEA also, there were numerous enquiries about suspect tutors, some of whom were encouraged to move elsewhere. The WEA became over-anxious to demonstrate its political reliability to the predominantly right-wing trade union movement and to the LEAs who again threatened to (and occasionally did) withhold grants or permission to use their premises. The cold war attitudes extended to the British colonies (particularly Africa) where several extramural departments were helping to develop adult education. The Colonial Office objected to the succour this seemed to give to the nationalist independence movements, and to anti-imperialist views generally. Several tutors were prevented from taking up posts because of their ideological unreliability.

In the late 1940s, even the liberal-bourgeois orthodoxy of Temple, Tawney, Lindsay and Cole had become narrowed so that, at least in some quarters, adult education came to be regarded as a suitable instrument to legitimise cold war consensus and to help induce conformity to its ideology. It was certainly not expected to contradict it, or to encourage resistance to it. Adult education's ideological parameters, which had always been present, had become a little more tightly drawn in the political atmosphere prevailing at that time.

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DEVELOPING AN EVALUATION USAGE MODEL: PATTERNS OF USAGE

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INTRODUCTION AND BACKGROUND

Adult Educational Program evaluations (used in the broadest sense to include curriculum analysis, project evaluation, program review, evaluation research, and other similar terms) are not new; they trace back to the 1930s and earlier. However, since 1964, the field has grown to the point that any state and federal legislation relative to education does not pass without a section dealing with expected formal evaluation.

The proliferation of formal evaluations and the dollars (over 1 billion per year) invested in them would indicate they are extremely useful. In fact, until about 1970, very few questioned their usefulness.

However, a paradox exists; evaluators say evaluations are underutilized. For instance, Fawcett and Wright (1980, p. 1160) say the "most frequently voiced concerns of evaluation researchers is that their work is underutilized and consequently has little impact."

Nachmias (1980, p. 1165) summarizes the concerns saying "the evaluation community is undergoing a crisis of unfilled expectations. There are only a few documented cases in which evaluation dramatically and immediately impacted directly on policy decisions." The few cases include work by Caplan (1977), Fox (1976), Florio et al (1980), and Patton (1978).

The apparent underutilization of evaluation has led many to speculate why. Reasons given include: poor design, poor timing, irrelevant information, impreciseness, vague recommendations, no visuals and charts, no direct involvement with users, and poor attitudes of users.

Dickey's (1980) empirical study showed decision-maker attitude, evaluation timeliness, decision-makers' perceptions of procedures, and helpfulness as the only independent variables related to utilization.

But several researchers are beginning to uncover another reason for the apparent underusage. In his study, Patton (1978) found 78% of decision-makers, in 20 different evaluations, felt that evaluation had had an impact, but that the impacts did not directly or immediately lead to major concrete program decisions.

Studies like Patton's have opened the question of whether we really know what utilization is. It apparently is a much broader and more complex concept than just direct, immediate, intangible inputs to decision-making.

Perhaps, then, a key reason for underusage is our lack of an adequate concept or definition of what usage is. Palumbo and Wright (1980) say "whether evaluation research is utilized depends on what is meant by the term utilized." Smith (1980, p. 24) specifically says "most writers do not define what they mean by evaluation use. . . ."

We are convinced that evaluation usage does entail the notions of being practical, making a difference, and leading to consequences. It is assumed

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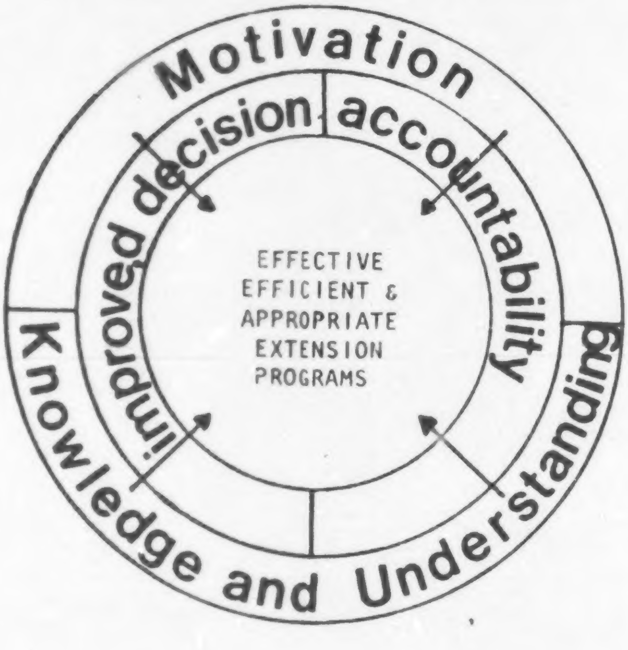
here, however, that any number of consequences are possible and that there might exist between these various consequences or usages a meaningful relationship. This paper addresses this particular problem. It is an attempt to broaden our understanding of evaluation use and to discover ways we can conduct further study.

What Is Evaluation Use?

In 1967, Suchman identified many reasons for conducting evaluations: (1) determine the extent to which the program achieves its objectives; (2) point out weak and strong points of a program and suggest changes; (3) examine efficiency of programs compared to other methods; (4) provide quality controls and set standards of performance; (5) help to clarify program objectives and challenge the "taken for granted" assumptions of programs; (6) help develop new procedures and programs; (7) provide checks on negative or boomerang effects; (8) help establish priorities for programs; (9) indicate degree of transferability of programs to other areas; (10) suggest needed research; (11) test administrative principles and policies; (12) provide for public accountability and justify programs; (13) build staff morale and feelings of achievement; and (14) help develop a critical attitude toward programming. Others have identified variations of these plus others like enlightenment, communications, etc. In reviewing the many reasons, the overlap between them became apparent as did the fact that they were potential benefits or ways in which program evaluations could be used. Forest and Marshall (1981) proposed a model of evaluation usage (see Figure 1) which encompassed and summarized these usages.

Figure 1
Benefits of Improved Evaluation



*Arrows represent communication.

METHODOLOGY

These usage types are reduced to five for the purposes of this paper:

1. communication
2. motivation
3. learning (knowledge and understanding)
4. accountability
5. decision-making

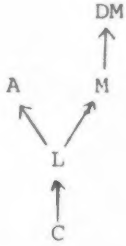
Since this study is an extension of the work done by Forest and Marshall (1981), the following is a brief synopsis of their methodology.

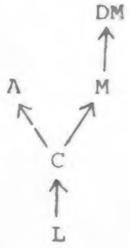
To develop an instrument to measure evaluation usage, approximately 300 general statements, each representing a potential usage type, were examined by an "expert" panel of sixteen people, all with experience in evaluation theory and practice. Among the tasks performed by this panel was the categorizing of each statement into one usage type. The criterion established for accepting a statement as representing a particular type of usage was 75% agreement among panel members. Fifty-four statements met this criterion and were used in a pilot questionnaire. A final 27 statements were chosen for a questionnaire which was mailed to recipients of the Shawano Impact Evaluation (Forest and Marshall, 1977), a study done in Shawano County, Wisconsin. Of a population of about 1,300 recipients, a sample of 265 received the questionnaire. One hundred eighty (180) people (68%) returned the survey. Their responses to the 27 statements, scored dichotomously as either "yes" or "no", form the basis for this study.

The Forest/Marshall paper suggests that the usage categories are inversely related as to frequency and importance; that is, learning, motivation and communications occur more frequently than accountability and decision-making but are rated as being less important.

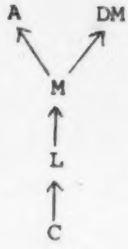
This observation suggested the notion that perhaps a hierarchy of evaluation usage exists, similar to the hierarchies of learning proposed by Bloom (1956), Krathwohl (1964), and Gagné (1970). This study begins investigating the existence of such a hierarchy.

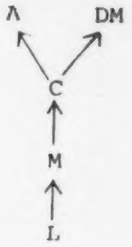
First, Pearson's correlation between the usage types found decision-making correlated with all four of the other types, while accountability was related to all but motivation. Motivation was only correlated with decision-making, while learning and communication correlated positively with each other, accountability, and decision-making. Two possible hierarchies which might explain these correlations would be the following:





Based on the frequency of positive responses, the rating of importance given by the panel, and deductive reasoning, two other possible hierarchies were identified:





Both sets included a branching occurring before accountability/decision-making. A great deal of uncertainty exists, however, concerning the relative placements of learning, motivation and communication.

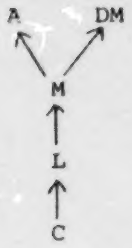
A procedure developed by Baker and Hubert (1977) allows one to test whether or not a particular hierarchy exists among a set of dichotomously scored items. The Quadratic Assignment Program, written by Baker, Hubert, and Schultz (1977) for either Univac or IBM computers, was used to make the necessary calculations.

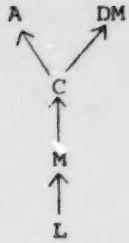
The actual details of this application, which are not completely outlined in the references cited above, will be presented in a future article. Basically, a theoretical matrix is set up, in this case 25 by 25. (Two statements, #26 and #27, were eliminated from this study since they represented negative usage statements.) Using ordering theory as a conceptual framework, this theoretical matrix is compared to a matrix produced by the data. The statistic "gamma" is derived from the addition of all the cross products of each cell of the two matrices.

This value in itself does not give an indication of the degree of "goodness of fit" between the theoretical and data matrices. The assigned values of the data matrix are permuted 1000 times by switching rows and columns at random and the statistic gamma is calculated for each permutation, forming a sampling distribution for gamma. [This is analagous to Fischer's Exact Test, Fischer (1935).] A significance level can then be chosen and the gamma obtained from the original data matrix can be compared to the distribution. If the value lies high enough in the distribution, at the 0.01 level for example, the evidence would be quite strong that the data did not occur in a random fashion but resembled strongly the structure of the theoretical matrix.

RESULTS

At the time of this writing, we have applied the QAP technique to two hierarchies. Two simpler configurations were chosen initially to allow us to gain familiarity with the procedure. Both of these hierarchies were significant at p = 0.001.





CONCLUSIONS AND IMPLICATIONS

Due to the relatively large number of statements which measure each usage category, there exists a degree of inexactness which is impossible to eliminate, given this particular data set. What the results do indicate, however, is that it appears that usage of evaluation does not occur at random, that some ordering of usage events does take place.

Further research, using both these data and future studies, will determine more exactly this order of usage. Additional experience using the quadratic assignment procedure will provide an estimation of the power and sensitivity of the test itself.

If an understanding can be achieved of types of evaluation usage, their order of occurrence, and the relationship of that order to time sequences, perhaps evaluations can be designed and implemented to take advantage of the naturally occurring sequence of usage events. More accurate and reasonable criteria for "meta-evaluation", or the critique of evaluation itself, could also be developed once an understanding of the evaluative usage process is achieved.

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AN ANALYSIS OF THE EFFECTIVENESS OF A WORKSHOP ON AGING IN CHANGING MIDDLE-AGED ADULTS' ATTITUDES TOWARD THE AGED*

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INTRODUCTION

This project was a continuation of an overall effort to develop and evaluate the effectiveness of educational programs in bringing about positive change in attitudes toward aging and the aged. The project was an extension of two research efforts previously funded by the Andrus Foundation. The first study (Trent, Glass and Crockett, 1979), was conducted among 300 4-H Club youth in North Carolina. Three different types of learning experiences (seminar, interview and seminar-interview) were utilized. The major conclusions of the study were that adolescents' attitudes toward the aged can be changed significantly through well-designed learning experiences and the three techniques are equally effective in changing attitudes.

The learning experiences in the second study (Glass and Trent, 1980), consisted of a ten-hour lesson series introduced into junior high social studies classes. The results of this study indicated that the attitudes of adolescents toward the aged can be changed through a two-week unit of study in the public schools and these attitudes can persist over a period of four to six months.

The basis for the current project lay in the question as to whether or not the attitudes of middle-aged adults could also be changed in a positive direction through carefully planned educational experiences. A further task of this project was to expand the relatively narrow research base regarding middle-aged attitudes toward aging and the aged. More specifically, the study addressed the following research questions:

1. What are the current attitudes toward the aged among middle-aged adults?
2. What personal and demographic variables are related to the middle-aged adults' attitudes toward older persons?
3. Can middle-aged adults' attitudes toward the aged be changed through participation in a 12-hour workshop series on aging?
4. If a change in attitudes does occur, what personal and demographic variables are related to this change?

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REVIEW OF THE LITERATURE

In a society experiencing an increase of older citizens, it is essential that attention be given to improving the quality of life of these persons.

> An important feature of the social space with which those defined as old must contend in the extent to which others are oriented to invite or shun, include or ignore, plan for or with, support or attack, reward or negatively sanction (McTavish, 1971, p. 90).

It is generally accepted that we live in a youth-oriented society. Numerous research efforts have been conducted which document this trend in our society of negative attitudes toward aging and the aged (Tuckman and Lorge, 1953; Kogan and Shelton, 1962 ; McTavish, 1971; Thorson, 1975; Harris, 1975; Sadowski, 1978). The attitudes which others have toward the elderly appear to have an impact on the treatment they receive (Mutachler, 1971; Campbell, 1971). The literature also suggests that these attitudes are critical for the adjustment and, perhaps, even the survival of older persons as well as the older adults' own self-image, feelings of adequacy and usefulness, and attitude toward life (Bennett and Eckman, 1973; Kahana and Coe, 1969; Harris, 1975; Ross and Freitag, 1976).

As Rosow (1962) stated:

> By now it should be clear that the crucial people in the aging problem are not the old, but the younger age groups, for it is the rest of us who determine the status and position of the older person in the social order.

In order to improve the quality of life of our older citizens, it seems imperative that attention be given to changing the negative attitudes toward the aged. While there has been little research done expressly to measure the attitudes of the middle-aged, some findings in this area have shown that their attitudes are among the most negative (Tuckman and Lorge, 1953, 1958; Kalish and Johnson, 1970).

The attitudes of the middle-aged take on importance when one considers the fact that the people of this age group are most often found in positions of influence and decision-making:

> Middle-aged men and women, while they by no means regard themselves as being in command of all they survey, nevertheless recognize that they constitute the powerful age group vis-a-vis other age groups; that they are the norm-bearers and the decision-makers; and they live in a society which, while it may be oriented toward youth, is controlled by the middle-aged (Neugarten, 1968, p. 93).

Knox (1977, p. 54) has elaborated on this phenomena:

> The middle generation of adults between their thirties and their sixties tends to carry the burden of concern for programs, pennies, and progress. As members of the middle generation, they usually hold positions of power and responsibility in which they are expected to deal with public problems.

The middle-aged, then, have a great impact on the treatment of the aged for they control the policies and programs on which many older adults find themselves dependent.

An even greater impact may lie in the middle-agers' influence, as norm-bearers, over the formation of the attitudes of the young. As was stated in the Harris poll (1975, p. 231):

> All who inform or influence others, particularly the very young, have an important role to play in improving public understanding. The heaviest responsibility rests on those who wield the greatest influence or who provide most of the information.

It is probably important to note at this point that the attitudes imparted by the middle-aged to the young are most likely the attitudes by which those same middle-aged will be judged when they move into the aged population group themselves.

In addition to the above concerns, the middle years would seem an optimum time for attempting to change attitudes toward aging and the aged because of certain developmental factors. McKenzie (1979) and Entine (1979) both cite aging as an appropriate topic for inclusion in a curriculum developed for persons concerned with mid-life transitions. While the ages 35 to 55 are often considered the prime of life, the literature states that these years precipitate new developmental tasks, many of which deal with facing and planning for the inevitability of one's own aging (Lidz, 1968; Havighurst, 1972). During these years, the adult faces a period of stocktaking, introspection, and possible anxiety and mourning for those things lost. There is also a change in time orientation with a shift towards time-left-to-live. It is a time of re-examining purposes and re-evaluating how to spend resources in the years to come.

Levinson (1978, p. 210) perhaps sums up this process best:

> A major developmental task of the Mid-life Transition is to confront the Young and the Old within oneself and seek new ways of being Young/Old. A man must give up certain of his former youthful qualities - some with regret, some with relief or satisfaction - while retaining and transforming other qualities that he can integrate into his new life. And he must find positive meanings of being "older".

This transition in roles makes this time a "teachable moment" for middle-aged adults. Attitudes of the self and others may indeed influence the way one ages. As Bevan (1972, p. 4052) states:

> The key in the problems of aging is not natural resources or the know-how of the medical and behavioral sciences. It is a fundamental change in attitude.

Thus, by studying the process of attitude change toward the elderly, this project attempted to take one step in the direction of improving the social environment for aging in our society. The literature (Triandis, 1971) seems to suggest that there are three primary ways that attitudes can be formed or changed--through interaction with others, through direct experiences with attitude objects, and through more knowledge. The researcher attempted to utilize these factors in the learning experiences developed for this project.

METHODOLOGY

The researcher designed a twelve-hour workshop which offered individuals an opportunity to learn about many different aspects of the aging process and of life for older persons. The participants examined many myths and stereotypes of aging, as well as some of the positive and negative aspects of aging. The learners reflected about their own aging, in addition to looking at the aging of others. The instructional methodology included a variety of learning experiences such as: lecture-discussion, audio-visual presentations, small group activity, case studies and sensitivity exercises.

Twelve workshops were planned throughout North Carolina - four through college and university extension divisions, two in technical college extension settings and six through the sponsorship of six different county Agricultural(Cooperative)Extension Service offices. The learners were all volunteers between the ages of 30 and 60, and control groups were selected at each site. The study employed the pretest--------→ treatment-----→ posttest design. The experimental group participated in a series of six two-hour workshops and completed the pretest and postest. The control group received no instruction but completed the pretest and posttest. The researcher had individual orientation sessions with the workshop leaders well in advance of the workshop in order to acquaint them with the leader's guide and the resource materials. All of the workshops were conducted by persons other than the researcher.

In addition to soliciting demographic and personal data, each person completed the Kogan (1961) "Old Peoples" Scale and the Purpose in Life Scale (Crumbaugh, 1968) as pretests. The Kogan Scale was administered to both the experimental and control groups as a posttest at the conclusion of the workshop.

A least squares analysis was used to perform the analysis of variance to establish F values for the significance of the relationship between the various dependent variables and the independent variables (sex, age, marital status, education, race, religion, family income, occupation, number of brothers and sisters, birth order, purpose in life, and various factors pertaining to the middle adults' parents).

One-half of the workshops were completed by December, 1980, with the remainder being held in January and February, 1981.

FINDINGS AND DISCUSSION

Since all of the workshops were not completed by the deadline for the preparation of this paper, there are no findings and conclusions to report at this time. The results will be reported in the paper session at the Research Conference. Persons desiring a summary of the project findings and a copy of the workshop lesson plans are urged to write this researcher.

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AN EMPLOYEE ASSISTANCE PROGRAM DEVELOPED FROM AN ADULT EDUCATION PERSPECTIVE WITH A COST/BENEFIT MEASUREMENT

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INTRODUCTION

There has been a great deal of interest in the popular press and in the professional literature of labor relations about programs designed to assist the employee with personal, financial, alcohol or substance abuse problems. Most of the programs are claimed to be "humanitarian" efforts. In times of low inflation, low interest rates, and high production companies often are involved in programs designed only to help the employee, since the cost of those programs may be written off as an expense. As the economic situation changes, however, and the business outlook becomes more depressed, management tends to view all programs that do not directly contribute to increased company profitability as superfluous and expendible.

The employee assistance program (EAP) incorporated was based on training supervisors to identify problems in the work place which may be associated with deteriorated personal relationships, financial problems, alcohol or substance abuse. The actual counseling was done by tax supported community agencies. Of particular interest were some national statistics indicating that one in ten employees would fall under the troubled employee rubric, that is, would have problems that impaired their job performance.

Specifically, the question to be answered by the study was: What is the relationship of employee job performance and the cost/benefits in a plant with no EAP and a plant with an EAP in a multi-plant organization?

METHODOLOGY

The population for this study consisted of all the employees at one plant in Crawfordsville, Indiana and a second company in Woolard, Ohio. Sites for the study were selected on the basis of similarities in plant size, age, products, method of production and community-work force demographics.

The study consisted of three groups: a treatment group of only troubled employees; two comparison groups - the total employee population in a 1900 employee plant at Crawfordsville and a comparison of the total employee population at a second plant with 1200 employees in Woolard. A random sample of 317 employees was selected in Crawfordsville and 291 employees in Woolard. The treatment group of troubled employees (59 employees) were the EAP subjects at the Crawfordsville plant and thus were not randomly assigned.

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The study was longitudinal (12 months) using the non-equivalent control group design as described by Stanley and Campbell (3:37). Pretest and posttest measurements for the study were collected through non-obtrusive methods.

Data were collected from company work records of job performance, training costs, absenteeism, grievances, accidents, production loss, insurance, achievements and suggestions, and census data. Company records for the two previous years in both plants provided cost norms for base line data. Standard accounting procedures were used for total and standard costs for each variable and provided information from which the cost/benefit of the EAP could be determined.

Community demographics information included city/county populations, ethnic composition, age, sex, unemployment, income, education, voting preference, birth and death rates, and arrests. Variables such as type of referral, age, sex, marital status, length of employment, and education were part of the design.

DESCRIPTIVE STATISTICS FOR DEPENDENT VARIABLES

Results of the study were based on job performance variables of the three groups and were measured in dollars expended or saved as a result of the EAP. Variables were measured in January, 1976 to July, 1978 to establish any trends existing prior to the implementation of the EAP. Savings and costs were determined by subtracting the cost of each variable for each quarter during the study from the cost of each variable before commencement of the EAP. All variables, to result in a savings, had to decrease from 1978 to 1979 except for achievements and suggestions. Achievements and suggestions had to increase from 1978 to 1979 in order to show a savings.

FINDINGS

After implementation of the EAP, the rate of absenteeism increased during the third and fourth quarter of 1978 but declined throughout 1979.

The number and total cost of accidents was higher for troubled employees than for the comparison groups prior to the EAP. After the EAP, the number of accidents did not decline but the cost of each accident was reduced.

The EAP reduced absenteeism and accidents for the troubled employee group and saved the company money through increased achievements and suggestions for troubled employees. There was an increase in grievances and insurance premiums which were subtracted from the savings of the company. Total savings and attendant costs attributable to the EAP were $94, 214 and $36,250 respectively. This was an expenditure of $4830.34 per month and a resulting savings of $7851.19 per month. In other words, for every one dollar spent one dollar and sixty-three cents were saved. The savings of $36,250 equals a savings of $614.40 per troubled employee per year.

TEST OF SIGNIFICANCE AND CORRELATION

A t-test was calculated for sub-groups of troubled employees. Regression analysis were used to determine any trend in job performance variables existing prior to the commencement of the EAP. Discriminant analysis of the total cost of each variable were used to determine which variables, if any, would contribute most to the identification of troubled employees. The standard cost of each variable was determined and an analysis of variance for each job performance variable was conducted.

T-Test - No difference in the job performance of the self-referred employee and supervisor-referred employee was found. The t-test comparison was used to analyze the troubled employee's job performance variables before and after the EAP. The only significant variable was that of achievement. Achievements were written awards placed in employee files when production records were established. The t value was -2.43 ($p < .018$) with means of .3113 in 1979 and 4.3581 in 1978. The negative and moderate correlation of -.487 for achievements indicated that troubled employees had significantly fewer achievements in 1979 (post-EAP) than in 1978.

Regression Analysis - Regression analysis was calculated to determine any pre-existing trends. Most of the variables did not fit into the linear or non-linear equation, e.g., the data collected during the one year study were not part of previous trends in the company. Exceptions were grievances and absenteeism in the Woolard employee group, accidents in the Crawfordsville employee group and insurance for all three groups.

Discriminant Analysis - Given an employee's job performance history, it is possible to identify group membership and the variables that contribute most to that identification. Absenteeism and insurance were two discriminating variables. Total cost of absenteeism for the first and second quarters of 1978 (pre-EAP) was entered as one variable and the total cost of absenteeism for the first and second quarters of 1979 (post-EAP) was entered as the second. Wilk's Lambda and Rao's V were used to select the discriminating variable. Wilk's Lambda was .9721 with F=9.7425 and the change in Rao's was 19.48 for 1978 absenteeism ($p < .0001$). F values were 11.54 for troubled employees - Crawfordsville, 19.21 for troubled employees - Woolard, and 3.30 for both plants in 1978. The Eigenvalue was .2866 when the 1978 function was present and the canonical correlation was .16693 with a Chi-square value of 21.40 with 4 degrees of freedom ($p < .001$). The centroid for troubled employees was .50221 and .7497, the centroid for Crawfordsville employees was .01950 and -.05792 and for Woolard employees, centroid was -.12413 and .05108. The higher the absenteeism cost, the more likely an employee was a member of the troubled employee group prior to the EAP.

Wilk's Lambda for 1979 insurance benefits was .9759 with F=8.3965 and the change in Rao's V was 16.79 ($p < .001$). F values were 13.10 for troubled employees Crawfordsville, 16.67 for troubled employees - Woolard, and .80 for both plants in 1979. The Eigenvalue was .2545 when the 1979 insurance function was present, the canonical correlation was .15753 and the Chi-square test with 4 degrees of freedom was 17.32 ($p < .002$). The centroid for troubled employees was .50269 and -.01478 while the centroid for all Crawfordsville employees was -.01037 and .01948; the centroid for all Woolard employees was -.09006 and -.01929. The greater the total insurance benefits, the more likely an employee was a member of the troubled employee group after an EAP.

Analysis of Variance - Standard costs in two-way analysis of variance were computed for the three groups before and after the EAP. A two-way analysis of variance was computed with group membership as one independent variable and marita status, length of employment, education or age as the second variable. Absenteeism was found to be significant for groups was not significant for a second independent variable of time.

Similar analyses were made for insurance benefits and for accidents, both of which were found to be significant for group membership. However, little difference was found in each group amongst group segments based on marital status, length of employment, education, age and employment status.

CONCLUSIONS

Similarities in the communities, plants, and production history make it likely that the Woolard plant was an acceptable comparison group for the Crawfordsville plant. Community and work similiarities also increased the confidence in the data collected and the results of the data analysis. Based on the results of the summative evaluation and the return on investments for the company's investment in employee assistance programs, it would appear that this type employee assistance program does materially reduce troubled employee work related problems. Future savings may not be quite as spectacular since the first employees identified obviously were those with the most chronic problem conditions but higher costs associated with work related problems will be avoided in the future (the accountants concept of opportunity cost) since problems should be identified at earlier stages and the employee return to productive employment at an earlier stage with the attendant lack of lost time-production or increased costs. The one item not significantly changed, that of insurance benefits paid, would probably be reduced as the more chronic cases are dealt with and problems are identified at a less severe earlier stage.

Overall, it may be concluded that the employee assistance program based on training supervisors to identify job performance problems is cost beneficial and results in a return on the program investment.

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LIBERATORY ADULT EDUCATION IN TRADITIONAL SCHOOLS
or CAN A RABBIT CATCH THE FOX?

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> Born and bred in the brier patch, Br'er Fox. I was born and bred in the brier patch.
>
> -Tales of Uncle Remus-

The world is divided into two categories of people: those who were born and bred in brier patches and those who weren't. Those who weren't, if they apply their own rules and values to those who were, are likely to obtain unexpected, incongruous, and highly distorted results. The epistemological question faced by all researchers is addressed not only to the results of research and the consistency of those results with the criteria imposed by the research method, but also to the context--the universe in which the criteria and method have developed. In other words, the researcher needs to know whether the criteria and method have been developed for a brier patch world or not.

For reasons which are beyond the scope of this paper, and which are more political in origin than the result of scientific inquiry, research in education has largely assumed an empirical/mathematical form similar in its stature and acceptance to Euclidian geometry prior to the eighteenth century. The appropriateness of empirical method to all questions is seldom doubted, which is to say there is little available research on research, and when such research is undertaken, the questions raised are peripheral to the research methods employed. It is the purpose of this paper to challenge some of the hegemonic assumptions of empirical research in education and to exemplify the implications of this challenge in reference to a research project undertaken over the past three years. (Heaney 1980) This project is offered as one alternative to empirical method for the production of knowledge within the field. It is my intention to argue for the existence of multiple sets in which the criteria and methods of educational research are to be defined.

The Research Question: Can a Rabbit Outfox the Fox?

Since the early seventies there have been a growing number of attempts at liberatory educationwithin traditional colleges and school districts. Levels of public funding and the search for new markets which accompanied the growth of these institutions led to experimentation with community-based and frequently community-controlled adult basic education. Many of these programs proved to be eminently successful in attracting and maintaining enrollments, but as the seventies waned and as inflation led to a reordering of priorities for public spending, even the most successful of these programs frequently experienced alienation from their institutional sponsors. This has led in some instances to an elimination of liberatory programs, in other instances to a redefinition of purposes so that programs ceased to be liberatory, and in still other instances to a privatization of liberatory programs, usually with greatly reduced budgets and enrollments.

The conflict between liberatory programs and their traditional sponsors was, in most cases, unanticipated and therefore not planned for. This failure was the result of an inadequate analysis of the purposes served by American educational institutions and, more importantly, an inadequate theory of liberatory education. It was in order to compensate for this latter deficiency

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that the present study was undertaken. I sought to understand the failure of liberatory education--its failure to be liberatory and its failure to achieve or maintain public funding. Can the rabbit outfox the fox? That is, can liberatory educators continue to enjoy the brier patch world and, at the same time, get the sly and foxy managers of traditional schooling to underwrite their expenses? Can the two worlds--two sets, if you will--coexist according to mutually acceptable rules? Is congruence between liberatory and traditional education possible? I asked these questions in order to move my own thinking and the thinking of other liberatory adult educators toward a theory of liberatory education.

A Congruent Methodology: Can Foxes and Rabbits Communicate?

The epistemological question which preceeds and informs the selection of any research method seeks evidence that the method is a guarantor of congruence between the "reality" which the research investigates and the codifications which the research hopes to produce. Ideally, the chosen methodology will maximize congruence between reality and codification in order to insure the subsequent congruence between what is known as a result of the research and what we are thereby enabled to do. In other words, the validation of research method guarantees the congruence between comprehensibility and replicability; i.e., what we know as reality we are thereby empowered to recreate. This "principle of double-congruity" underlies the validation of any research method and is critical in the selection of appropriate tools for the comprehension and codification of experience. Simply stated, the principle is this: congruence between the phenomenal world and its codification is demonstrated by the extent to which the codification makes possible the predictable manipulation and control of the phenomenal world. This principle embodies what is commonly acknowledged by researchers: namely, valid research produces meaningful results and results are meaningful to the extent that they are verifiable--that is, able to be tested in the world.

Congruence is achieved not only through the perfection of codification and analysis, but through the manipulation and transformation of the world itself. Philosophers of science have long debated the non-neutrality of observation and, more recently, the impact which observation has on the observed. (Bastin 1978; Hamlyn 1978) An evident example is the impact which a research tool like the microscope has on amebic substances displayed on a glass slide. Congruence between the image produced and the material on the slide is sought, not only by perfecting the image-producing characteristics of the lenses, but also by flattening the living matter between two planes in order to bring it into greater congruence with the two-dimensional limitations of the medium of observation. As the fingers alter the surface of an object they explore, so do other research instruments adapt and refine reality to the demands of the tools used.

Survey research achieves a similar adaptation of reality when asking a subject for an opinion on a matter about which he or she has not reflected previously. Being confronted with a question, a respondent is pressured to have an opinion. Even when the option of "no opinion" is provided, the subtle pressure to avoid appearing uninformed or dull frequently remains. Multiplying the number of respondents and aggregating responses does not eliminate or even minimize the reality-transforming effect of the method. In fact, aggregating discrete data--as in national opinion polls--further transforms the reality under study by proclaiming as social reality opinions which were not the result of a social process, thus creating a self-fulfilling prophecy. Research on such polls has clearly demonstrated this "bandwagon" effect. (Katz 1972; Navazio

1977)

Such critiques of research methodologies are commonplace, but they are not offered here as criticisms. Rather, they are examples of the transformation of reality in pursuit of congruence in all research. This is also to say that we are never neutral researchers; our perspective and analytic energies are always shaping the reality we observe, as well as being shaped by that reality. By taking on the stance of a researcher I intrude upon reality, I stand over and against it critically observing and forcing the reality before which I stand to yield its meaning. If you are the object of my study, I can enter the room in which you are reading this paper. I can find an advantageous position from which to observe your reactions, your tendancy to distraction, and any opinions you might reveal to those who might interrupt your reveries. You might, at first, be vaguely aware that I am watching you. You can choose to ignor this, but my stare is likely to become an increasing source of irritation. I observe that you are becoming self-conscious. If you find it important to be well-thought-of you might adopt a posture and role which you feel would reflect well on your intelligence and social decorum. Or perhaps the irritation becomes anger or even fear, in which case I observe other dimensions of your personality. The important consideration is that much of what I observe is likely to be the result of my being present to you. I have, in fact, entered into dialogue with you; I receive messages from you, but at the same time I am transmitting messages which impinge on your reality and to some extent alter it. My perception of you is not thereby distorted; it is rather an adequate perception of you as perceived by me. This does not mean that my perception is "subjective"--at least not in the usual sense of that term. It rather means that all perception of social reality is intersubjective. I cannot avoid this intersubjectivity by hiding my observation from you, as behind a one-way glass. Even then I have intruded upon your space and time, hidden a portion of your world from you. This artificial, laboratory world I have given you is my word to you, influencing your response, placing you on a glass slide and shaping you to the demands of my microscope. Such, at least, is a phenomenological view of research and research methodology.

It was within this phenomenological frame that the foregoing questions concerning the failure of liberatory education were addressed. A method of study was sought which 1) would assure the greatest possible congruence between observed social reality and resulting codifications and 2) would take into account the manipulative/transformative consequences of my being present to the social reality under observation. Concerning the first requirement, congruence depends, in part, on the clarity with which those values and assumptions underlying the self-definition of the observed social world enter into the codifications which I produce. In other words, the means of observation--whether it be the observer/researcher or some more formal tool of measurement--must, according to the principle of double-congruity, be encouraging of self-definition. Such self-definition is best assured when the research method itself promotes reflection and conscientization within the group under study. A research method which actively involves the "objects" of study as participants in inquiry will not only account for, but utilize the manipulative/transformative consequences of research in order to maximize the final congruence between codification and that which the studied group is empowered to do.

Such a methodology would be uniquely appropriate to the study of liberatory education and would have the greatest internal consistency with the assumptions of the programs under study. The research would be likely to shape these programs-- as all research shapes that which it studies--in a manner consistent with the internal dynamics of the programs themselves.

Liberatory programs are committed to interdependent learning. They eschew hierarchy and attempt to practice collegial and consensual governance. Research methods applied to such programs would do well to approximate these aims of liberatory education. For example, programs which, for pedagogical and political reasons, have excluded testing cannot be measured by the use of written instruments, no more than Euclidian geometry can be used to solve problems of intergalactic measurement.

The method I chose to investigate the apparent failure of liberatory education combined the political assumptions of participatory research with the discipline of grounded theory as developed by Glaser and Strauss. (1967) I sought answers in an emerging theory of liberatory education. The major focus of my questioning was directed to persons engaged in the struggle to create and develop two liberatory programs in Chicago: the St. Mary's Community Education Center and the *Universidad Popular*. Interviews, most taking the form of informal conversations, were scheduled over a period of fourteen months with seventy-three adults. Most of these conversations involved small groups of three to six persons who collectively addressed questions regarding the liberatory assumptions and purposes of their program, their pedagogical methods, their governance, and comparisons between their present and previous experiences with education. Because I had been a colleague of many of the interviewees, I established a sufficient level of trust to use a tape recorder during most sessions, although I made it clear to the discussants that the tapes belonged to them and that nothing from the tapes would be used without their having an opportunity to review the material in the context in which I proposed to use it.

My purpose was not to accumulate individual perceptions of these programs and then analyze the resulting data in aggregate form. I sought rather, whenever possible, to allow thoughts about learning and society to take shape as they would in the programs themselves, to emerge within the interaction of the groups, and to find mutual acceptance. The picture which emerged from these discussions was not a picture of what *was*, so much as a picture of what ought to be in the minds of the discussants. In this way, the research redounded into strategies for action and there were numerous major changes introduced into the programs. These changes were a direct consequence of the reality-altering impact of the research itself.

As I began to put my own thought in written form--filtered through my own experience and perception--I was guided by what Glaser and Strauss have termed the "constant comparison method." (1967, 102) Data was gathered into *categories* which appeared to incorporate a variety of facts. As major categories emerged--tested for their usefulness in the group discussions--*theoretical notations* about these categories were put into written form and used as probes to determine whether the categories had predictive value, that is, did incidents and data cluster about the chosen categories so that new data was no longer needed to support them. As modifications of the provisional categories became fewer, the remaining categories became *saturated* with data. Codifications were developed to explain the underlying complexity of data, inconsistencies were exposed and accounted for, and *theory* emerged as the provisional integration of the remaining categories. As each of these incremental stages was reached, I went back to sometimes the same, to sometimes different groups, to see whether what I had captured in the more formal discipline of writing reflected *their* perceptions. Frequently these re-interviews (and re-reinterviews) generated entirely new areas of discussion, new data, and new categories, and the process would start again. Themes for our discussion were increasingly generated by the discussants themselves who, as they gained confidence in themselves and in the practical consequences of their study, assumed a greater share of responsibility for analysis and conclusions. New themes converged not only within, but between groups, and became the principal theoretical constructs. No previous attempt was made to obtain a "representative sample" in gathering the groups. Rather the emerging themes dictated the ongoing inclusion of new persons; these themes were constantly shared with dissimilar groups and occasionally with individuals and groups from other programs and even from other cities to test the extent to which consensual agreement could be obtained. In this manner the process of data collection was controlled by the emerging theory and by the expanding circles of participants in the study.

During months of discussion and analysis, the research ceased to be "mine." It was the collective effort of all who participated, not only as respondents and as primary sources of data, but more importantly as collaborators in the articulation of questions, the determination of appropriate categories for codifying and communicating new understandings, and the evaluation of emerging themes. The research methodology incorporated the political strategy of participatory research by achieving a reappropriation of the tools of research by those who would change, and not merely define the world. (Hall 1979) This strategy was congruous with the assumptions of the brier patch world of liberatory education and thus gave greater assurance of convergence between the phenomenal social world being studied and the codification of that world in theory. In this regard, the research process became a form of liberatory education, for me as well as for others. The medium was the message.

Some Results: Defining the Brier Patch

While it would be beyond the purpose of this paper to fully sketch the research conclusions of the project just described, two conclusions have had major consequences for both programs. The first pointed to the fundamental contradiction between liberatory and traditional education. Acceptance of a liberatory program within traditional educational systems is likely to occur in inverse proportion to that program's active involvement in social and political change.

A second research conclusion pointed to an even more critical factor in the success or failure of liberatory education. Because of its incarnation within action, liberatory education is frequently not identified as education, but rather as the action towards which learning moves. For example, community organizations and unions might occasionally offer workshops, but most of the time learning occurs at meetings during which members reflect on situations and dialogically interpret their reality, while developing strategies for transforming it. As a result, much liberatory education does not occur in schools or in traditional educational institutions. When Eugene Debbs met with the workers at Pullman, when Saul Alinsky met with residents of Woodlawn, or when Myles Horton met with miners at Wilder, Tennessee, direct action to transform the social order had already begun. When learning occurred, it was in relation to that action. The content was action against the Pullman Company, the University of Chicago, or Fentress Coal; learning both clarified the struggle and provided a foundation for its continuance. Liberatory education thus began and ended in action. Action on behalf of change is both the source and the effect of liberatory learning. Traditional schooling serves to maintain the social order by isolating learning and action; whereas, the radical transcendence of traditional schooling begins with concrete liberatory acts which precipitate the breakdown of the old order. Liberatory action contradicts traditional schooling, negates it, and when successful ultimately renders it obsolete. The new pedagogy to which even seminal liberatory acts give birth heightens consciousness of the contradictions between the new and the old order and leads to further, more clearly defined strategies for action.

The radical nature of this latter conclusion is not to be minimized. When failure occurs in liberatory education, it too often is not because the program has been "done in" by the educational establishment--though this might well be true--, but at a deeper level because the program has greatly exaggerated the importance of education in the process of liberation and social change. Education causes neither to occur in the absense of political goals and means. The conflict between traditional institutions and liberatory education has, in fact, been used to disguise and ignor the inherent weakness of many liberatory programs. This astoundingly self-critical conclusion was the consensus of participants in the study!

Since the conclusion of the study its influence has been evident in the debate surrounding much of the internal planning and decision making both at St. Mary's and at the Universidad Popular. Decisions have been made, with consequences not yet fully determined. Even before the research was completed, St. Mary's refused to compromise with the Chancellor of the City Colleges on the right of students and staff to select and evaluate teachers and administrators in their own program. As a result the Chancellor terminated the program. St. Mary's has now reopened as a private adult high school with full accreditation of the North Central Association. The Universidad Popular has also resolved to sever its ties with the City Colleges in the near future. During the interim it is developing programs intended to augment and eventually supplant the now dominant English and high school equivalency curricula. This effort is coordinated with the activities of political activist organizations in its own community. According to our principle of double-congruity, the validity and historical significance of the research conclusions I have described are being measured in these decisions and their consequences.

While the two rabbits in our study might not have caught the fox, both, as you can see, are negotiating an escape back into the brier patch. And the fox still doesn't know what a habitable place the brier patch can be--if you happen to be a rabbit.

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THE "COMMAND GENERATION": RELATIONS BETWEEN CREATIVE RESPONSES AND SELF-ESTEEM

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INTRODUCTION

Changes in the age composition of the American population and development of the concept of lifelong learning have generated enthusiasm for adult continuing education programs in the United States. The fact that our society is an aging one is well documented (Woodard, 1977). The phenomenon of the graying of America is creating changes in our social-institutional fabric.

The correlative growth of the lifelong learning concept with the increasing proportion of older people in the nation's age distribution is requiring that educational institutions meet profoundly different needs. In attempting to respond to demographic realities educational institutions are confronted by learners with different characteristics and different purposes. Among the purposes of today's adult learner is the idea that education is no longer primarily a preparation for the future. Rather, the emphasis is on acquiring information, skills, and attitudes for effective problem solving to meet the present demands of today's modern society.

Learner characteristics are important in any behavioral setting (formal or informal, institutional or noninstitutional) where effectiveness and efficiency of human learning is desired (Ripple, 1977). In learning situations where creative problem-solving is the objective, associated learner characteristics are of particular importance. Learner characteristics include cognitive abilities and personal-affective characteristics. One cognitive ability set associated with creative problem-solving is divergent thinking. The expression of divergent thinking abilities during the adulthood years is relatively unexplored (Alpaugh. Renner, and Birren, 1976). The area of cognitive creativity merits inquiry if our ultimate goal is to improve divergent thinking in adults (thereby developing creative problem-solving abilities).

The purpose of this study was to explore the nature of divergent thinking during the early and middle adulthood years of the life-span. Intended contributions are theoretical, methodological, and practical: theoretical in the sense of providing information related to the controversy surrounding age and cognitive ability decline; methodological in the sense of developing a common age bias-free data gathering instrument for use in life-span research; and practical in terms of implications for adult education.

METHODOLOGY

A total of 179 subjects ranging in age from 18 to 60 years responded to a personal data inventory, a self-esteem measure, and a taped auditory free-response exercise in divergent thinking. Subjects (selected opportunity samples from universities, continuing education programs, community groups, and business organizations) are believed to be representative of white

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middle-class persons and are comparable in terms of identified characteristics (e.g., occupational status, college education, marital status, and average ability to hear).

Three divergent thinking abilities (fluency, flexibility, and originality; Guilford, 1967) were investigated. Fluency, flexibility and originality of thought were measured through subjects' responses to a free-response exercise in divergent thinking. (This exercise is conceptually similar to "Sounds and Images", Cunnington and Torrance, 1965.) Participants responded in writing to presentation of four groups of auditory stimuli recorded on a cassette tape (duration 17 minutes and 53 seconds). These groups of auditory stimuli consisted of both familiar (e.g., a thunderstorm) and abstract (e.g., an electronically synthesized cymbal roll) sounds. Each group of sounds was preceded by narrated instructions (encouraging participants to be imaginative) and followed by a silent period. Subjects responded while the sounds were being played and during the silent periods after the sounds. The sequence of four sound groups was played twice. Preliminary testing with the divergent thinking instrument indicated that lack of sufficient response time was not a problem.

Fluency was operationally defined as the total number of responses. Nine flexibility categories of responses were developed by the investigator a priori. Each subject response was identified and coded as belonging to one of the nine categories. The number of different categories represented in the responses for each sound group was summed to obtain the subject's flexibility score. Originality was defined by two criteria, statistical rareness and cleverness. A statistically rare response was one that occurred in less than 5% of total responses. "Cleverness" was determined by interscorer judgment as to imaginativeness and appropriateness of a response. To be scored as original a response needed to meet both criteria.

Responses to the divergent thinking exercise were scored independently by two people. Scores for each participant were summed across the sound groups for fluency, flexibility, and originality. Interscorer reliabilities were as follows: fluency = .99; flexibility = .95; originality = .92. Test-retest reliabilities on a subsample of 21 participants were as follows: fluency = .75; flexibility = .65; originality = .77. Support for the construct and criterion-related validity of the exercise is presented in Khatena and Torrance (1973).

Self-esteem was measured with a modified version of the Coopersmith (1967) Self-Esteem Inventory. The modification was guided by an effort to develop a measure of self-esteem appropriate for adults. An example of the type of modification made would be changing the statement "I find it very hard to talk in front of the class" to "I find it very hard to talk in front of groups of people".

The self-esteem inventory required that the subject respond to 54 self-description items. Subjects were instructed to place a check in the column "Like me" if the statement described "how you usually feel", and to place a check in the column "Unlike me" if the statement did not describe "how you usually feel". Built into the self-esteem inventory was a seven item lie scale which was used to eliminate the scores of subjects who responded in a way suggesting a desire to "appear" favorable. Lie scale items were not included in computing the self-esteem scores. Responses to the 47 items on the inventory, excluding the 7 item lie scale, constituted the measure of self-esteem.

Three months after the original data collection, 21 persons participated as retest subjects. Test-retest reliability was computed for the self-esteem inventory ($r = .77$, $p < .001$).

A personal inventory was constructed to measure historical-developmental characteristics of subjects. The following information was collected for each participant: age, sex, occupation, level of formal education, length in years of residence at current home, the number of previous residential relocations, general health, condition of eyes and ears, marital status, and preferred age of retirement.

All subjects completed the same test procedure. Tests were group administered in several locations. Young adults were tested at a private university and a community college. Other adults convened at their respective places of employment, and in the context of continuing education classes. Data collection sessions lasted approximately 1.5 hours.

A cross-sectional research design was employed. Subjects were categorized for data analysis into three age groups: young adults (18-25), adults (26-39), and middle adults (40-60). A problem with cross-sectional studies is that cohort differences and age changes presumably add together to give the result of age differences. However, a study by Birren and Morrison (1961) indicates that cross sectional studies can concur with sequential studies under certain conditions. One of these conditions is to control for critical variables such as level of education across age groups. It is believed that this study achieves a satisfactory level of comparability among age groups on salient developmental variables, reducing the likelihood of cohort effects. While a conservative stand with regard to developmental interpretation of these data is taken, the results which are reported are suggestive of the possible development of divergent thinking during the early and middle years of adulthood.

RESULTS

Table 1 presents the means and standard deviations for all three age groups on fluency, flexibility, originality and self-esteem. Multiple t-test pairwise comparisons were conducted among all age groups on scores for fluency, flexibility, and originality. The Tukey Critical Range test of significance for $\alpha = .01$ was used to correct for experimentwise error rate in making all possible pairwise comparisons. The Tukey Critical Range formula for comparing unweighted group means from unequal sample sizes was used. There were no significant differences among young adults, adults, and middle adults on measures of divergent thinking. Multiple t-test pairwise comparisons were also conducted on self-esteem scores among all age groups. Young adults, adults, and middle adults did not differ significantly in self-esteem.

The within age group Pearson product-moment correlation coefficients between self-esteem and divergent thinking are found in Table 2. There were no significant correlations between self-esteem and divergent thinking within the young adult and adult age groups. Self-esteem correlated significantly

TABLE 1
Means and Standard Deviations for Fluency, Flexibility, Originality, and Self-Esteem - All Age Groups

Age Group	Fluency		Flexibility		Originality		Self-Esteem	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Young Adults (18-25 years) N=70	30.9	12.7	19.1	5.5	18.9	6.5	34.1	6.7
Adults (26-39 years) N=58	30.2	13.2	18.4	5.2	18.6	6.4	36.5	6.9
Middle Adults (40-60 years) N=51	36.2	14.0	21.1	5.5	19.9	7.5	38.2	5.7

TABLE 2
Pearson Product-Moment Correlation Coefficients
Self-Esteem and Divergent Thinking

Age Group	Fluency	Flexibility	Originality
Young Adults	-.04	-.01	-.01
Adults	.17	.17	.15
Middle Adults	.29*	.30**	.31**

TABLE 3
Partial Correlations of Self-Esteem and Divergent Thinking
Holding Age Constant

Age Group	Fluency	Flexibility	Originality
Young Adults	-.03	.01	-.01
Adults	.18	.17	.15
Middle Adults	.29*	.29*	.33**

* = significant at the level of $p \leq .05$

** = significant at the level of $p \leq .01$

*** = significant at the level of $p \leq .001$

with all three divergent abilities for middle adults (fluency $r = .29$, $p < .05$; flexibility $r = .30$, $p < .01$; originality $r = .31$, $p < .01$).

Because the cross-sectional age gradients were similar for scores on fluency and self-esteem, partial correlations between each of the three divergent abilities and self-esteem were computed, holding age constant (Table 3). This was done to determine if the relationships between divergent thinking and self-esteem were spuriously high due to the correlation of each with age. The partial correlations were not significant for young adults and adults ($p > .05$). Holding age constant, partial correlations between self-esteem and divergent thinking were significant for middle-aged adults (fluency $r = .29$, $p < .05$; flexibility $r = .29$, $p < .05$; originality $r = .33$, $p < .01$).

DISCUSSION

There is disagreement and controversy among researchers who study adult cognitive abilities as to if and when these abilities decline in the adult life cycle (Schaie, 1974; Horn and Donaldson, 1976; Baltes and Schaie, 1976; Horn and Donaldson, 1977). Although the present study does not specifically focus on this issue, it is worth noting that these data suggest a gradual linear increase in the expression of divergent responses during early and middle adulthood. Whatever the ultimate construction and resolution of the age-decrement model might be, it is essential that we do not create a set of personal-social expectations about the absence of divergent thinking abilities in older adults that leads to a self-fulfilling prophecy. In the present study, the middle-aged adults manifested higher levels of measured divergent thinking abilities. Differences in divergent abilities within the middle adult age-group were more closely related to self-esteem than they were to age.

Self-esteem appears to be a key variable in implementing successful educational interventions with mature adults... supporting it, capitalizing on it, building on it. If the creative problem-solving abilities of adults are to be developed and utilized in coping with their continuing developmental problems, it would be difficult to overestimate the importance of the formation of positive attitudes in society, teachers in continuing education programs, and the older adults themselves.

As the age structure of the population changes proportionally in an upward direction, there is an increasing need for research from a life-span approach. Increasing numbers of people at all ages are returning to formal and non-formal educational settings. Instructional procedures and educational policies profit from research that reveals age-population characteristics. Recent public issues, such as mandatory retirement age, demand empirical evidence regarding the life-course development of cognitive abilities to guide public policy. Data contributing to the empirical resolution of the theoretical controversy surrounding age-ability decline is needed. Methodological issues involved in life-span research require attention. This study responds to the needs for research by educators, developmental psychologists, and others related to these issues.

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A PROCEDURAL MODEL FOR DETERMINING THE RELATIVE IMPORTANCE OF COMMUNITY-WIDE NEEDS

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The purpose of this research was to develop and test a model of priority setting which could help practitioners determine the relative importance of needs in their community. The model incorporates elements of the qualitative and quantitative meanings of the term "importance" into a decision-making procedure.

QUALITATIVE BASE

The qualitative base refers to the values a community places on certain broad goals and the more specific needs relating to these goals. In setting need priorities, values constitute the ethical component of the decision-making process. One goal will be considered more important than another because it holds more value. Similarly, a need related to that goal will have priority over another because it reflects a higher value. For example, in a western society a goal such as health might be considered more important than consumer economics. Similarly, a need which involves people dying might be considered more important than one involving under-employment. The basis for both of these decisions would be that life is more highly valued than self-fulfillment. In short, given a choice of living in a condition of under-employment or not living at all, most people would prefer the former, because they value life more highly.

QUANTITATIVE BASE

A second base for determining importance is quantitative. Questions such as "how large is the discrepancy between present and desired conditions?" or "how large will this discrepancy become if the present need is not addressed?" can be answered by quantitative data retrieved from various sources in the community.

The relationship between the qualitative and the quantitative bases of decision-making has perhaps been best summarized by Simon (1949):

> priority decisions...select one future state of affairs in preference to another and direct behavior toward the chosen alternative. In short they have an ethical as well as a factual content (p. 46).

Thus in making priority decisions in terms of importance one should be concerned with two distinct bases - one which is reflective of value, another which contributes factual information on conditions of actual discrepancies in the community. Failure to adequately take account of either base would inevitably result in a list of priorities which does not truly reflect importance. On the one hand, the list may comprise highly valued needs with little evidence of any pressing condition in the community. On the other hand, the list may draw from the most pressing conditions which no one values highly.

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SELECTION OF A NEEDS ASSESSMENT MODEL

The Goal Framework Model of Community Development (Schroeder, 1979) appeared to be the most suitable model within which a prioritization procedure could be developed to combine qualitative and quantitative bases of importance. The following is a brief examination of those aspects of the Goal Framework model which are essential to the understanding of this reaearch. The basic assumption of the model is that needs are derived from goals which themselves are value expressions. A deductive process to clarify the meaning of a goal leads to the development of a goal framework comprised of attributes and indicators. The latter provides a basis for identifying possible situations of need in the community.

The starting point is the identification of a goal state which is a reflection of what a person believes to be ideal. Goal states provide direction to the programming process in that they identify general, abstract concerns toward which the programming process can direct its efforts. Goal states are expressed not as measurable targets to be achieved but states which can be realized in varying degrees.

The question, "what do you mean?", leads to greater goal state clarification. The quality components specifying current dimensions of meaning serve as the operational definition of a goal state. These components are called "goal attributes". It is possible for a goal state to have several attributes, or dimensions of meaning.

The question, "what does an attribute look like?", further clarifies a goal state. The observable, measureable quantities representing an attribute are called "indicators" as they indicate in precise terms what an attribute looks like.

The refinement of a goal state, then, leads to the specification of its qualities (or attributes). Further specification leads to its quantity (indicators). Goal states, attributes and indicators taken together are considered a goal framework in that all three levels interrelate within a common frame. Needs, as discrepancies, are derived directly from indicators. Comparing the present state of an indicator with a future, more desirable state may result in a condition of need within that particular goal state framework.

With reference to the Goal Framework model, the qualitative base seemed to this researcher to be tied to the goal framework by definition. That is, as the goal framework is an attempt to clarify and make explicit the underlying values of a community, the qualitative base of importance would be reflected in the goal framework. The quantitative base, on the other hand, seemed tied to the indicators once they were examined in the actual conditions of the community. Thus, the quantitative base of importance would be reflected in the conditions of a community and not in the goal framework.

DEVELOPMENTAL PROCESS

The process of development began with the initial design of the three components of the model: qualitative, quantitative, and integrative. For the qualitative base, alternative criteria were generated to determine the relative importance of indicators. These criteria originated both from a literature search into the area of values and from practitioners in the field of adult education. The issues facing this researcher were how to deal with the complexity of values, the seeming arrangement of values in a hierarchy and the measurement of values through use of a goal framework. The challenge was somehow to clarify and resolve some of these issues and to develop a procedure which would make meaningful qualitative distinctions within a goal framework.

For the quantitative base, several criteria were generated from Sork's (1978) and Southard's (1979) research. The quantitative issues concerned how to select criteria which were inclusive yet functional, how to combine the criteria into a multiple criterion base, and how to measure the quantitative input of importance where several criteria are combined.

Three approaches to integrate the two bases into a procedural model were explored by the researcher. The purpose of this exploration was to generate several possibilities of integration in order to resolve two sorts of issues. The first concerned the relative portion each base would have in the integrating scheme. That is, should one base be considered to contribute a greater portion of the term importance, or should each base be allotted equivalent portions, and on what rationale? The second issue concerned the final ordering of needs. Should the integrating procedure produce a list of ordered needs, or should the procedure stop at some point short of actually producing such a list? Instead, should the procedure display for the practitioners clusters of needs from which practitioners can choose several based on information about each need specific to their particular community?

Each component was formatively evaluated in two workshops held in conjunction with a Title 1 Higher Education Act project conducted in the state of Florida during 1979-80. Participants in the workshops were practitioners of adult education responsible for the administration of Community Instructional Services at either community colleges or public school departments. The model was summatively evaluated in a workshop comprised of first and second year graduate students in adult education at Florida State University in August, 1980.

THE DEVELOPED MODEL

The Qualitative Base

By determining the portions of value expressed at each of the three levels of each goal state family, it is possible to estimate the value of every indicator. There are three instrumental questions in this process - one at each level of the goal framework.

At the goal state level, each goal state's relative expression of value is estimated through use of the paired comparison technique (Guilford, 1954, pp. 154-177). The instrumental question to which respondents judge each goal state is, "which goal state do you value more highly?" This particular wording most directly pinpoints the scale, i.e., more or less value, for goal state comparisons.

The procedure used to measure each attribute's portion of value expression is the same paired comparison technique as was used at the goal state level. Each attribute is compared with every other attribute in the same goal state family. The number of times each one is selected over its alternative is calculated and a percentage is computed to reflect this proportion. The instrumental question, "which attribute defines more of the parent goal state?" directs the respondent's attention toward both the criteria for judgment, i.e., greater or lesser proportions, and the definition of attributes as definers of goal states.

As with the other two layers of the goal framework, each indicator is paired with every other indicator describing the same parent attribute. The number of times each indicator is chosen over the other alternative is calculated to provide a percentage estimate of the attribute's total value. The instrumental question, "which indicator describes more of its parent attribute?", directs the respondent's attention to both the criteria for judgment, i.e., more or less description, and the definition of the indicator as a descriptive measure of an attribute.

An indicator's goal state value expression is the proportion of values expressed by each level of the goal framework. Mathematically,

$$I_{GSV} = GS_{pv} \times A_{pv(GS)} \times I_{pv(A)}$$

where,

GS = Goal State
A = Attribute
I = Indicator
pv = a proportion of value

In those instances when the same indicator reappears at some other point in the goal framework, its total qualitative estimate is computed by combining each separate estimate. Thus, the total value estimate of an indicator is a combined total of its expressed value. The following formula expresses this integration:

$$I_{tv} = \sum_{k}^{n} I_{GSV}$$

where,

GSV = Goal State Value
tv = Total Value

Comparison of indicators in terms of their total values will separate those which are more expressive of value. The output of the qualitative base is a list of indicators rank ordered in terms of their relative expressions, the assumption being that those which are more expressive of value are of higher priority than those which are less expressive of value.

The Quantitative Base

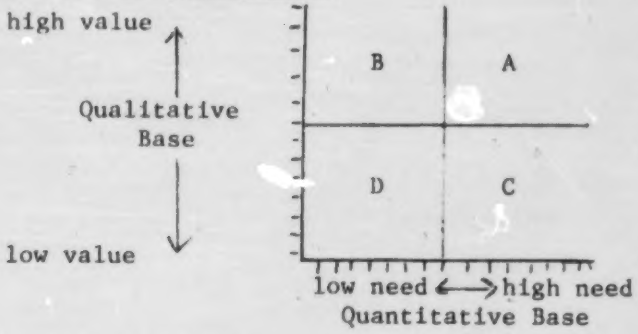
Each need has a present discrepancy estimate stemming from the present and criterion levels of conditions in the community. Each need also has a future discrepancy estimate stemming from the projected and criterion levels. The first of these constitutes the definition of need as a discrepancy between present and more desired levels - termed criterion levels. The second quantitative estimate represents the discrepancy which is likely to occur in a fixed time frame if no efforts are undertaken to satisfy the present conditions of need. Projected levels refer to the future level of conditions with no intervention.

There are two quantitative outputs: one is a rank ordering of needs based on their relative present discrepancy estimates; the second is a rank ordering of the same needs based on their relative future discrepancy estimates. The assumption for each ranking is that needs which show greater disparity from criterion levels are of higher priority. Comparison of the two lists provides the practitioner with a means of determining relative urgency. Those needs which are growing faster will move to higher priority positions on the future discrepancy ranking.

The Integrative Procedure

The following figure displays the integrative procedure as a matrix divided into four quadrants, each line dividing each axis in half (see Figure 1). The qualitative estimate of a need indicator is located along the vertical axis. The quantitative estimate of a need is located along the horizontal axis.

FIGURE 1: PRIORITY QUADRANTS



Needs are ranked along the vertical axis in terms of the value expressions of their indicators. Those which express the greatest amount of value (and thus have the largest qualitative estimate) are positioned at the top of the vertical axis. The others are arranged in descending order to the least expressive. Needs are first ranked along the horizontal axis in terms of their relative present discrepancy sizes. The need which is the largest (and thus shows the greatest discrepancy between present and criterion levels) is positioned at the far right of the axis. The other needs are arranged in descending order of discrepancy size toward the left. The same needs are then repositioned on the same horizontal axis according to their relative future discrepancies. Because some needs may grow while others may get smaller, this second rank ordering is likely to be different from the first. Thus, when repositioned on the matrix, some needs may shift toward the right (if they are ranked in higher priority positions) or toward the left (if they are ranked in lower priority positions). The lateral movement of needs visually displays to the practitioner the relative urgency of each need.

The division of the matrix into four quadrants distinguishes among four clusters of needs. Each quadrant clusters needs of similar qualitative and quantitative estimates. Procedures for selecting one quadrant over another in terms of relative importance could be as follows. Needs which have the highest estimates on both bases (and thus are clustered in quadrant A) are of highest priority. Needs which have the lowest estimates on both bases (and are therefore clustered in quadrant D) are of lowest priority. Quadrants B and C are mixed clusters and further consideration is necessary. The priority system which follows rests on one assumption: whenever the qualitative and quantitative estimates are mixed with no common agreement, priority is given to the qualitative base over the quantitative base. Therefore, quadrant B, which is of high qualitative and low quantitative importance, is of higher priority. Conversely, quadrant C, which is of low qualitative and high quantitative importance, is of lower priority.

SUMMATIVE EVALUATION

Two independent groups, each comprising five subjects, pariticipated in the summative evaluation. A goal framework was developed as input for the procedural model under evaluation. Eleven indicators evenly distributed throughout the framework were selected as bases for need statements. Both groups initially ranked the need statements before exposure to the model. Both groups then participated in the qualitative rank ordering which consisted of application of the paired comparison technique to the previously developed goal framework. All elements of the framework were randomly assigned and the pairs of elements were presented following Ross's (1934) rules for balanced ordering. Both groups participated in the quantitative rank ordering of need statements, the integration of the two bases, and the final determination of ranks.

Results indicated that at the .01 significance level both groups produced related prioritized lists (Spearman rank correlation coefficient = .80) using the model and unrelated lists when they did not follow the model (Spearman = .59). Respondents favored the list associated with the model over the one produced through their own efforts. The model was perceived to be clear, logical, adaptable and acceptable by participants. All components were perceived to be highly helpful and practical.

CONCLUSIONS

Within the limitations of this research, it is suggested that this model may offer a clearly delineated procedure to help practitioners determine the relative importance of needs in adult education. In times of accountability, increased public scrutiny and concern over the efficient use of limited resources, an explicit procedure such as the one developed in this research may become a necessity in program planning.

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ATTITUDES, DIFFUSION AND DECISION-MAKING IN RURAL NIGERIA: THE IMPACT OF NONFORMAL EDUCATION

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INTRODUCTION

Most African countries achieved political independence during the early 1960s. Political independence was swiftly followed by the quest for economic independence which has been slower in coming. Agriculture as the dominant sector in most African nations has been viewed by many as the key to rural development and therefore, economic independence. A developed agricultural sector, the argument goes, can provide employment opportunities, raise rural incomes, increase food production and reduce dependence on foreign agricultural commodities. Thus, rural development projects are frequently seen as the vehicles of change.

The results, however, have been disappointing, as many rural development projects have failed to achieve their intended objectives. Nonetheless, as Bunting observes, "The supply of new pupils for that hard school of experience does not seem to diminish" (1970: 7). Gittinger claims that these failures are due to administrative attitudes that ignore the needs and viewpoints of farmers themselves. He cautions that projects which set out to give farmers what they "ought" to have, may conflict with existing farmers' value structures and may ultimately run into unrecognized and unanticipated forms of resistance (1966). DeWilde similarly notes that agricultural projects in Africa, in a number of cases, fail "...in whole or in part because research has not in fact provided an answer or a very attractive answer to the problems facing the farmer" (1966: 9-10). He suggests that agricultural research be focused on local farming systems, trials and demonstrations, the economics of innovation and crop varieties.

The implication, however, is that development planners have accorded little attention to a comprehensive analysis of the attitudes and personal values within the socio-cultural context of African farmers. Lele says that limited knowledge of the socio-cultural and institutional environment of development planners has been a contributing factor to the lack of effectiveness of most development programs in Africa (1975). Belshaw similarly notes that sociological, economic and administrative factors are significant elements in the diffusion of development technology in East Africa (1968) so therefore need to be better understood.

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The failure to examine attitudes within their socio-cultural contexts has affected participation in nonformal education programs and the decisions of individual farmers regarding the application of what they have learned. This study, therefore, examines the attitudes and values of rural farmers and their relationship to the adoption of new agricultural technologies in two communities in Oyo State, Nigeria. The paper concludes with a discussion of the implications for nonformal education programs in Nigeria.

THE RESEARCH QUESTIONS

Specifically, the research questions include:

1. Do the attitudes of farmers toward the Badeku project affect the adoption of farm credit, fertilizer, pesticides, and improved maize?
2. Do the attitudes of farmers toward change affect the adoption of farm credit, fertilizer, pesticides and improved maize?
3. Do the attitudes of farmers toward religion affect the adoption of farm credit, fertilizer, pesticides and improved maize?
4. Do farmers' attitudes toward project participation affect project success as measured by the adoption of recommended farm practices?

METHODOLOGY

The University of Ibadan's Department of Agricultural and Extension Education established the Badeku Expanded Project on Rural Development as an experiment in social change and a laboratory for the study of extension in rural Oyo State, Nigeria. The project area included one community in the forest region of Oyo State (Egbeda Unit) and another in the savanna (Fashola Unit). Ten villages were randomly selected from each of the two areas. In each village in the savanna part of the sample, ten farmers were randomly selected to be interviewed. Twenty farmers were selected from each of the more populous forest villages. A total of three hundred respondents were interviewed in July and August, 1980, by a team of researchers from the University of Ibadan, using a pretested instrument designed to elicit information regarding farmers' background characteristics, personal attitudes and adoptive behavior.

Using frequency distributions and chi square analysis, the study examined the extent to which there were significant differences in the adoption of farm practices, including fertilizer, credit, pesticides and improved maize. The independent variables included background characteristics such as age, sex, educational level, income and size of land holdings as well as the farmers' views of the project and attitudes toward participation, religion and risk-taking.

THE FINDINGS

The study found that while farmers between 40-59 years of age were more likely to adopt improved agricultural practices than their younger and older cohorts, this relationship was not statistically significant. The mean age of the sample was 51, which underscores a major problem in the area that is apparent to even the most superficial observer--the migration of the young to urban centers. One may postulate that younger, more progressive farmers may in fact have already moved to the cities leaving those behind who are less likely to innovate. Alternatively, younger farmers who lack social status in their communities may be more reluctant to counter the existing pattern of behavior by trying something new. That older farmers are less likely to accept new agricultural techniques is consistant with the findings of other diffusion/ adoption studies.

The fact that only one woman was considered a "farmer"* by project leaders made meaningful analysis of sex as a variable impossible but at the same time dramatically illustrates that women have not been integrated into the agricultural decision-making process.

Eighty percent of the respondents reported having no formal education. This variable was found to be significantly related to the adoption of farm credit but not fertilizer, pesticides or improved maize. This is a reasonable finding since credit assumes being able to perform simple calculations, manage accounts and keep records, all skills that can be learned in school. Inputs such as fertilizer, pesticides and improved maize, on the other hand, do not necessarily require these skills.

The mean size of land holding was 15.2 acres for farmers in the savanna region and 13.7 acres in the forest region. The analysis revealed a significant relationship between the size of one's land-holdings and the adoption of improved maize and fertilizer, but not with the adoption of farm credit or pesticides.

On the other hand, the attitudinal variables--views of the project, perceptions of project participation, attitudes toward religion and attitudes toward risk revealed associations with the adoption of all four recommended farm practices. Specifically, those farmers who adopted these farm practices perceived the Badeku project as being helpful in improving their general living conditions and had positive attitudes toward participation in all project activities. They also opposed the adoption of any farm practice which interferes with their religious beliefs and agreed with the statement that successful farmers must be willing to take risks.

IMPLICATIONS FOR NONFORMAL EDUCATION

The findings, directly or indirectly, suggest several implications for nonformal adult education:

1. Age and Urban Migration - Further research is needed to determine how rural young people view agriculture and how they can be involved in rural development projects. Although the probabilities of achieving well-paying positions in the urban sector are low, the young still move toward the cities in large numbers. Projects designed to increase farm income must also identify ways of making rural life attractive so that the young view farming as a viable occupation for them personally.

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*People were considered "farmers" in this study if they derive at least seventy-five percentof their income from the sale of their own agricultural produce.

2. Women and Decision-making in Agriculture - Although women cultivate the land in the study region, they were not considered "farmers" by the men in the community or leaders of the project. The chairperson of a farmer's association commented to the senior researcher regarding the absence of women at a decision-making meeting by saying that "...such meetings are not meant for women". Nonformal education programs that ignore the significant economic role of women in the community greatly limit the extent to which they can vitally affect social change.

3. Level of Education - Since formal education is very limited in these two communities, the need for rural development projects geared toward adults is great. What is less clear, however, is the kinds of organizations, structures, and methodologies required for adult education programs to be effective. The Federal government is about to launch a massive literacy program but this is happening in the absence of information regarding how adults learn in rural societies

4. Agriculture and Personal Incomes - The fact that farmers report receiving over 85% of their incomes from agricultural activities suggests that nonformal educational programs must begin with agriculture. Programs based on real needs must, therefore, emphasize agricultural production.

5. Attitudes and Adoption - It was clear from the data that while there were few differences in adoption behavior based on age, educational level, income, and size of land-holdings, attitudes were strong predictors of the use of modern agricultural practices. Farmers with positive attitudes toward risk-taking behavior, toward the project, and toward participation, were more likely to adopt farm credit, fertilizer, pesticides and improved maize. At the same time, those who felt most strongly that they should not adopt agricultural practices that run counter to their religious values, were the most likely to adopt the four agricultural practices studied here. This suggests that none of the practices proposed by the Badeko project ran counter to the religious values in the Badeko area but this does underscore the importance of understanding what they are at the onset. The fact that attitudes are tied so strongly to behavior suggests that research on attitudes and world view is needed within the context of rural development programs if they are to have much chance of success.

CONCLUSION

Agriculture continues to play an important role in the development of African nations such as Nigeria but nonformal education strategies must invest more time in examining how peoples' attitudes affect behavior.

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A TAXONOMIC FRAMEWORK FOR ADULT EDUCATION PRACTICES IN NORTH AMERICA

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PURPOSE

As a domain of social scientific research adult education is beset with several methodological obstacles. Chief among these are: 1) the inability to conceptually integrate separate lines of research into dimensions of this complex social practice such as clienteles, program contents, educational methods, evaluation procedures, and delivery locations; 2) the inability to compare examples of practice when each empirical case has virtually an infinite degree of detail; 3) the inability to make direct comparisons between historical cases which illustrate changes in practice, or to interpret the significance of those changes; and 4) the inability to make explicit the influence of educational values on the decisions which bring about changes in educational practice.

This study proposes that all four problems just identified are attributable to a single major gap in theory -- the lack of a comprehensive framework to place in perspective the diversity of practices evidenced in the field. Such a framework must do more than clarify external boundaries of the field. It must also specify internal boundaries which distinguish between basic variations in practice so that research which is focused on a portion of the field can take place in an orderly context.

The purpose of this study is to assemble a framework of basic types of practice within which to effectively consolidate and systematically advance research. Other approaches such as the single statement definition, the unidimensional scale, and the partial typology have proved to be inappropriate to the task. The main contribution of this study is to introduce a research methodology of the social sciences and to demonstrate its effectiveness by producing a comprehensive structure for the study of adult education practices.

REVIEW OF THE LITERATURE

Since adult education is a normative field, helping adults to change in directions which epitomize certain values, then it follows that basic variations in practice are distinguishable by the distinctive developmental goals they pursue. Consequently a systematic search was undertaken of Canadian and American statements since the 1930's on the range of goals pursued in adult education.

Selections were limited to Canadian and American educators since these two societies experienced similar economic cycles and impacts from the two world wars. Consequently, the services required from adult educators were similar. European adult education by contrast developed out of a notably different societal fabric and responded to quite different economic and wartime experiences. Authors were selected whose intention was to take the broad view and make a complete accounting of the range of functions fulfilled throughout the field, rather than report on some familiar or preferred portion of it. Timing of publications was also a consideration--seeking representation from both countries in the depression, wartime, and reconstruction decades as well as the two decades since.

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Table 1 compares the goal-function terms used in twelve major statements. While the persistent recurrence of these educational themes is significant in itself, the four themes do not identify differences in practice because they do not include the practical implications by which to help adults develop in those directions.

YEAR	AUTHOR	EDUCATION FOR:			
		Material Utility	Psychological Health	Some instrinsic Value	Citizenship
1935 CAN.	Peter Sandiford	vocational information			economics current events politics
1936 U.S.	Lyman Bryson*	occupational	relational	liberal	political
1948 CAN.	John Muir	earn a better living home building skills	family life	art, music, drama, handicrafts	life and death decisions of government
1948 U.S.	Mary S. Ely	vocational efficiency economic understanding	better human relations community improvement	personal growth, self-realization	civic participation & responsibility
1950 CAN.	J.R. Kidd	agriculture	marital problems child welfare emotional health worker-employer	atom bomb conservation films & radio touring exhibits	national social issues international role
1956 U.S.	Burton Clark*	economically more efficient, educational background	home life, & family relations	health, cultural devel., avocational interests	civic responsibility
1960 U.S.	W. Hallenbeck*	vocational flexibility communic. skills read/write/speak	improve human relations	expedite personal growth	facilitate participation
1963 CAN.	J.R. Kidd*	vocational & technical		liberal & humane	social & political
1964 U.S.	Harry Miller*	world of work: occupational	social world: industrial rel., family life, & self-understand.	world of form: esthetics self-expression science & society	social world: community participation
1966 CAN.	C.A.A.E. White Paper	health & basic skills, manpower tech-vocational professional		science, & humanities	community development training for citizenship
1970 U.S.	W.L. Schroeder	institutional needs	social roles	self-actualization	individual judgement about social change
1978	G.R. Selman	basic skills occupational vocational	human relations	leisure personal growth human potentials movement	social & econ. ed community devel. social consciousness of women

Table 1 : Juxtaposition of Roughly Similar Terms Regarding the Goals and Functions of Adult Education

*** Authors who mention remediation**

To summarize: Review of the literature provides a rough consensus on four developmental directions which adults pursue through education. It does not reveal variations in educational practice because the developmental directions are not operationalized into observational variables.

METHODOLOGY

Two techniques of social scientific methodology are employed to develop basic types of practice out of the consensus on developmental directions. The first, "articulation of a domain of inquiry" as described by Abraham Kaplan (1964) requires that a matrix be created with observational categories ranged across a set of theoretical classifications. In this study that set of classifications is created through the use of McKinney's (1966) procedural guidelines for implementing the second technique, that of "constructive typology". The "constructed types" which it produces are a technical refinement of those uniformities or regularities which all scientific research seeks in analyzing a large body of data. Constructed types "create" the units of social analysis through two interwoven operations: generalization, which considers cases as virtually identical with respect to a particular problem; and simplification, which describes cases by only those variables which are relevant to the study at hand.

> "The constructed type is a purposive, planned, selection, abstraction, combination and (sometimes) accentuation of a set of criteria with empirical referents that serves as a basis for comparison of empirical cases"(McKinney,1966:16).

Internal consistency among attributes, and constancy of their relations to one another are additional characteristics which distinguish the constructed type from the ordinary concept, and form the basis of its utility as a unit for comparison of empirical cases.

When constructed types have been executed with strict adherence to the methodology they serve the advancement of a discipline by enabling researchers to individualize or create entities of social analysis like "adult learner" or "learning project", and to survey or make the initial selection of data relevant to a problem area. Both these functions are demonstrated in this study. A constructed type can also be used effectively to a) predict according to the criteria contained in its definition; b) test hypotheses by enabling re-examination of data for inconsistencies; and c) quantify frequency of occurence, degree of deviation from a standard, and probability of recurrence of the entities or behaviours under examination.

Eight stages in the implementation of constructive typology

Formal execution of this technique involves the following eight steps, each of which is illustrated with a summary of its application in this study.

1. Delineation of the Problem: This study addresses the problem of how to analyze the diversity of North American adult education practices in contemporary cross-section and historical time-series. The theoretical assumption at work is that underlying the range of variation are four basic types of practice informed by four goal-function developmental directions.
2. Familiarization with relevant, available data: Two kinds of material on the field were examined. The first was historical case studies of programs, institutions and careers, seeking the widest possible diversity. The second kind of material examined was semi-analytic treatments of the five dimensions of practice.
3. Derivation of hypotheses about relationships and sequences: The first proposition, regarding relationships, is that the methodology will reveal sets of characteristics which a) will not reduce into the terms of each other, b) in combination will accomodate all variations in the field, and c) can be shown to have a common core which binds them to a common social practice. The second proposition, regarding sequences, is that a framework based on sufficiently undated and non-localized types will prove to be a means of accurate time-series comparisons.
4. a) Delineation of empirical uniformities: Examination of the literature of social functions revealed four clusters of goal-function terms. To this point

no alteration had been made to the original terms except to extract and group them.

b) Pragmatic reduction to type: Each set of terms was reduced to a formula definition based on its essential elements as follows: "This type of educational practice fulfils the function of ________ by ________, in order to achieve a general objective which is ________________, in a developmental learning domain which is ________."
These definitions are entered across the horizontal axis of the taxonomic framework shown as Table 2.

5. Simplification of the type with regard to the attribute space: In this study, simplification require selecting from the five dimensions of practice (contents, methodology, evaluation, clientele, and location) only those variables which are problem-relevant. The problem of establishing types of practice calls for selecting variables which are either discriminators between or common to all types, and eliminating those which may apply to more than one type, but not to all.
6. Tentative explanatory accounting of the types: In this stage of the methodology the set of observable characteristics attributed to each type was examined as a whole. The configuration was tested for internal consistency, and a rationale for the type was sought with reference to available principles and theories. This study examined extensively the set of observable characteristics listed under each of the four constructed types in the taxonomic framework shown as Table 2.
7. Empirical verification of types: Verification of types of practice requires using the techniques of "content analysis" to extract from historical documents and contemporary studies those terms which can be regarded as equivalents of terms in the taxonomic matrix. In this way a taxonomic "profile" can be developed for each case study.
8. Interpretation of the results: "Profiles" are used both to test hypotheses about the field, and to test the utility of the types themselves as constructed. It is possible at this stage to identify scale types which represent degrees of approximation to the original constructed type. For example, closer examination of social activist education may reveal subtypes of citizenship training which have emphases on economic action (1930's-type), political ideology (1950's-type), and social accountability (1970's-type). Alternately, a constructed type like "the American Middle Western state university" may be appropriate for short term explanation or prediction, while a problem of greater spatial scope and temporal range may require a more undated and nonlocalized type like "the Euro-American university".

FINDINGS

This study concentrated on stages five and six of constructive typology which require analysis of the attribute space and integration of the types, respectively. One chapter of findings was devoted to extracting from the five dimensions of practice those variables which are type-discriminators and those common concepts which are pervasive throughout the field. Figure 1 shows that portion of the goal and five observational dimensions which together form the core of variables common to all variations of practice. In this sector of the model reside the common goal of encouraging learner self-reliance, the common content of the adult learner's life experience, some common elements of program design and evaluation, as well as adult lifespan characteristics

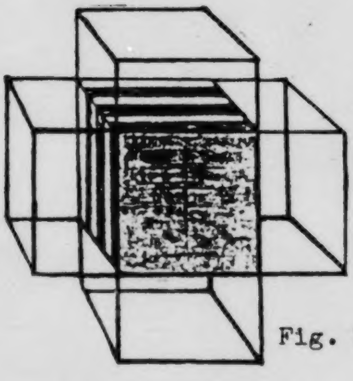

Fig. 1

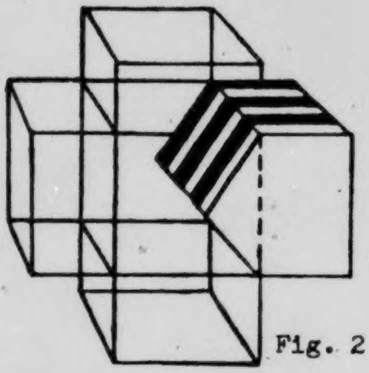

Fig. 2

and the function of the delivery location as an enclave of support for learning. A second chapter of findings made an extensive review of those variables which are exclusive to, and definitive of the four constructed types of practice. The taxonomic framework which is included as Table 2 summarizes those findings. Figure 2 captures one quality of the four types of practice which the taxonomic framework cannot. It shows that a type is not only the product of its unique variables, but also of those variables which it draws from the common core of adult education practice and by which it is bound to a common profession.

CONCLUSIONS AND APPLICATIONS

Three conclusions are drawn from this study: i) Applying the social science research methodology of constructive typology to the literature on social functions of adult education produces four constructed types according to goal, domain, and function. ii) These constructed types supply a conceptual structure, in the manner indicated by McKinney, by which to cull categories of observational indicators of practice for clusters which are internally consistent, and thus to assemble a taxonomic framework exhaustive of variables in the field. iii) According to the criteria offered by Kaplan the six figures displaying the constituent domains of data (only two of which are shown) comprise a formal model that specifies structural relations among the elements of the domain of inquiry.

Opportunities which arise for the practitioner to make use of the framework include: a) to organize graduate study; b) to draw on basic research and reports of innovations in practice; c) to discover the complementarity of branches of practice and to develop mutual respect among practitioners of divergent styles; d) to analyze policy formation; and e) to clarify his educational values so that all aspects of his practice will reinforce rather than detract from each other.

The taxonomic framework offers powerful advantages to the researcher over the many partial schema which have been used to analyze single aspects of practice in isolation from each other. One major advantage is the opportunity it provides to consolidate research on the contemporary field into "branches" of practice with their own rationale and supporting theory, eliminating the need to reduce all research to generalizations vague enough to encompass the whole field. Similarly it enables the consolidation of historical cases into complementary "traditions" of practice allowing for description in detail of the idiosyncracies of each case and thus minimizing distortions of presentism which occur with "basket categories". Analysis of the field using the framework can resolve dichotomies such as instrumental vs. expressive education, or practice which serves society vs. serving the individual. The framework can be used for concept analysis to articulate ambiguous phrases like "mature personality", "nation building", and "perspective transformation" which are found in the literature of adult education. Re-examination of research using the taxonomic framework increases the chances of uncovering empirical anomalies, developing new hypotheses, and conceptualizing tests of theory. As a middle range research device the taxonomic framework is well suited to stimulating more and better theorizing since it combines theory-oriented abstractions with observation-oriented indicators.

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Table 2

A TAXONOMIC FRAMEWORK FOR ADULT EDUCATION PRACTICES IN NORTH AMERICA

using constructed types consistent with four fundamental goals

	1. TECHNICAL EDUCATION	2. INTERPERSONAL EDUCATION
GENERAL GOAL	TO DEVELOP TECHNICAL ABILITIES	TO IMPROVE INTERPERSONAL RELATIONS
DOMAIN	primarily cognitive or psychomotor	primarily affective (emotional)
FUNCTION:	BUILDING COMPETENCIES BY training the client from an entry level of knowledge or skill to a target level	DEVELOPING EFFECTIVE ATTITUDES AND BEHAVIOURS BY guiding the practice of perceiving, expressing and responding to others, and contributing to the qualitative growth of groups
TOPICAL CONTENT	Any subject matter which can be treated as: i-Knowledge recall: concrete specifics, abstractions and universals, conventions of knowledge organization ii-Intellectual skills: manipulating information iii-Psycho-motor skills: industrial, sportive, -artistic iv-Procedural skills: occupational, vocational household, professional	i-General personal growth in human relations: in dyads, triads, and small groups ii-Family life: marriage, parenting, aging iii-Helping professions: education, health services, social services, ministry [illegible]-Interfacing communities: racial, religious, ethnic, linguistic
METHODOLOGY FOR LEARNING	INSTRUCTION - may be individualized or for groups OBSTACLES: complexity, volume, memory, transfer STRUCTURING PRINCIPLES: simple to complex, concrete to abstract, distributed practice, known to unknown DISTINCTIVE TECHNIQUES: (cognitive) programmed text, lecture, seminar multi-media modules, computer, symposium (motor) demonstration, skill practice, coaching (procedural) physical and social simulations field placement, apprenticeship.	LABORATORY - must be with others in present-focus work on components of effective relating OBSTACLES: defense mechanisms, rationalization STRUCTURING PRINCIPLES: least to most stressful DISTINCTIVE TECHNIQUES: case studies: as in-basket exercises, as role plays, as interview texts, as film simulation as transactional analysis clinical training; unstructured T-group(1946) structured interpersonal labs; critical incident; behaviour logs; non-verbal exercises
BASIS FOR EVALUATION	OBJECTIVE ASSESSMENT OF LEVEL OF ACHIEVEMENT Outcomes evaluated: may be criterion-based, sequential mastery, or norm-based ranking Using: psychomotor rating scales, content tests, behavioural objectives based on task analysis	OBJECTIVE/SUBJECTIVE FEEDBACK REGARDING ONE'S EFFECT ON OTHERS Outcomes evaluated: perception, expression and response; group contribution; group growth Using: interview content analysis, subjective self assessment; peer evaluation; observation
CLIENTELE ORIENTATIONS	GOAL ORIENTED (sometimes: activity) Persons - seeking employment - seeking vocational advancement - seeking craft, sport & recreation skill - seeking home-centred skill - seeking professional development	GOAL ORIENTED Persons - who wish to improve some aspect of their human relations - "in good touch with reality"; not seeking therapy, or remedial intervention
SPECIAL LOCATIONS	. trades schools and polytechnics . computer and information facilities . studios, labs and workshops of all kinds . gymnasia, pools, tracks and sporting arenas . sites with specialized tools and equipment	. retreat-type environments: hotels, resorts, church-owned retreats, special institutes

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3. SELF-ACTUALIZING EDUCATION	4. SOCIAL ACTIVIST EDUCATION
TO INTENSIFY SELF-ACTUALIZATION	TO ENABLE ACTIVE PARTICIPATION IN SOCIO-ECONOMIC DECISION-MAKING
primarily affective (aesthetic/philosophic)	primarily social experiment
ENCOURAGING VALUE CHOICES BY providing opportunities to critically assess experiences that significantly affect persons privately and as creators of society	FORMING A REALISTIC AWARENESS OF SOCIETY BY raising the quality of critical thought about the social environment, and raising the level of active influence on decision-making
i-Liberal education: fine, literary, and performing arts; history; philosophy ii-Adult higher education: humanistic implications in all social sciences, life sciences and physical sciences iii-Religious education: morality, ethics, theology, treated in a sectarian, comparative or ecumenical manner iv-Health education: physical and mental	i-Community development ii-Cooperative economic management iii-Civil liberties iv-Cultural self-determination v-Environmental protection vi-Union building
IMPRESSION-REFLECTION - may be solitary or group OBSTACLES: disaffection, overwork, stagnation STRUCTURING PRINCIPLES: by disciplines; by social roles; by central issues DISTINCTIVE TECHNIQUES FOR: Impression: (direct) exhibits, concerts, travel (indirect) modeling, biographies, interviews Reflection: diary, artistic creativity, debate satire, pantomime, group improvisation Both: reading/viewing/listening & discussion special interest societies; cultural exchange	SOCIAL EXPERIMENT - as a growing community OBSTACLES: anomie, paternalism, bitterness STRUCTURING PRINCIPLES: 1. recognising tension: taking responsibility 2. studying problem: setting an objective 3. exploring situation: planning action 4. taking action: assessing results DISTINCTIVE TECHNIQUES FOR: Citizens: outreach, conscientisation, nucleus Environment: inventory, reconnaissance Intervention: petition, lobby, larger nucleus
SUBJECTIVE/OBJECTIVE APPRAISAL OF THE DEGREE OF INTERNALIZATION Outcomes evaluated: awareness, response, valuing, value sets, characterisation Using: subjective self-appraisal, attitude scales, follow-up studies	OBJECTIVE ESTIMATION OF THE DEGREE OF SELF-DETERMINATION Outcomes evaluated: personal change from anomie to autonomy; environmental change; change from non-responsive to responsive decision-making Using: attitude scales; social indicators;
LEARNING ORIENTED (sometimes: activity) Persons - more deeply curious and less instrumental about learning than the average - whose self-concept is high - who are seeking renewal, and transcendence of daily preoccupations	GOAL ORIENTED Persons - directly affected by a particular unresolved social issue - who wish to understand an issue as prelude to taking action - who have some developed sense of the common good
. churches, synagogues, mosques, temples . museums, auditoriums, planetariums . galleries, theatres, libraries . conservatories, observatories, laboratories	. in the street . at city hall . on the picketline . on the phone . in boardrooms . in shareholders meetings . in the courts

THE FIRST TEACHING EXPERIENCE OF PART-TIME TEACHERS

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INTRODUCTION

Community college continuing education programs rely heavily on the teaching services of the part-time instructor. These instructors are usually hired for their experience in their subject area; teaching experience or ability is secondary. Each semester, new part-time instructors are hired as part of the general turn-over of staff, or to teach new courses.

Often these new instructors meet their first group of college students with little or no introduction to teaching or to the college they will represent. This type of introduction to college continuing education or adult education causes problems for both the instructor and students. The instructors meet their first group of students uninformed about the institution which they represent, its services or policies. Anxiety is created as they are not sure what to expect. They do not know whether their ideas for teaching adult students are valid or feasible, and they may use teaching methods that are not appropriate for the adult student. The implementation of a professional development program for new continuing education part-time instructors would help alleviate some of these problems.

A search of the literature indicated that most of the research pertaining to part-time college instructors appears to concentrate on statistics, working conditions, faculty handbooks and demands for faculty development. Epstein (78) and Garcia (78) surveyed the training needs of part-time teachers, Grymes (77) studied student perceptions of full and part-time teachers and Moe (77) developed a seminar series for part-time instructors. In no instances were the new part-time instructors isolated. Moe's experience indicated that the part-time instructors found workshops valuable but that attendance was disappointingly low.

Problem-solving is often a major motivator of adult learning. From this, one can suggest that new part-time instructors lacking knowledge or skills of the teaching process have a problem and therefore will engage in learning about this. Fair (75) has shown this to be the case with new elementary school teachers. If one were aware of this learning behaviour, a professional development program could be developed that would enhance, complement and build on this teacher initiated learning.

This study then had three objectives:

1. to investigate how new part-time continuing education instructors acquire the skills in and knowledge of the teaching/learning process
2. to investigate which skills s/he acquired and
3. to investigate the impact of the following variables on the learning-educational background of the instructor, the hiring process, the presence or absence of orientation sessions, contact with college personnel and involvement in the college.

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METHODOLOGY

The data for the study were collected through in-depth personal interviews with new part-time instructors. The interview schedule combined both structured and open-ended questions. The interview followed the sequence of events in an academic semester, beginning with the hiring process, and concluding with recommendations for help or services for other new part-time instructors.

The sample was located by requesting the names and addresses of new part-time instructors from eight colleges of applied arts and technology in southern Ontario. To be included the instructors had to fulfill the following criteria: 1) begin teaching in academic year 78-79; 2) be teaching a credit continuing education course; 3) have no previous teaching experience in a formal educational institution and 4) have no formal teacher training before being hired.

SAMPLE

The sample consisted of 41 part-time instructors of whom 15 were female and 26 were male, ranging in age from 24 to 56. The mean age of 35.3. The females had a higher educational background than the males - 80% were university or college educated, while this education accounted for only 66% of the males.

The instructors represented nine different colleges of applied arts and technology and all academic divisions. The general stereotypes held true - most women taught in the social sciences and most men taught in business and technology.

The courses they taught ranged from 8 - 20 weeks in length. The mean length was 13.5 with a standard deviation of 3.2. 61% taught courses of 12 - 16 weeks.

MAJOR FINDINGS

Institutional Environment

The instructors received very little information about their main job "teaching" before entering the classroom. 56% of the instructors were hired less than two weeks before they met their first class. No information about the following areas was received by some of the sample: course content - 31.7%; resource material for the course - 56.1%; resource people for the course 65.9%; teaching methods - 87.8%; resource material to help with teaching - 90.2%; students - 63.4% and the college - 85.4%.

Most of the information was gained during the interview process. However, only 59% of the sample received personal interviews as part of the hiring process. 58.5% of the sample received no orientation to either administrative procedures or to teaching.

On the first evening of class 17% of the instructors met another instructor; 51% met an administrator or support staff and 32% met no college representative. 60% of the instructors reported no help from the college at all during their first six weeks of teaching and 22% received help on request.

Class visitations for evaluative purposes occurred in only four cases. No verbal or written report on the visit was received by the instructor involved. In five cases, the college distributed and collected course evaluation forms from students. A compilation of the results was sent to the instructor but no interpretation of the results or other feedback were included. In seven other instances, when course evaluation forms were completed by students, the instructors received no information.

Thirteen of the instructors personally conducted their own teaching evaluations. 17 of the instructors personally conducted course evaluations. Discussions and questionnaires were used in both instances.

Learning About Teaching

The instructors were asked what skills and knowledge they learned in order to teach or to improve their teaching. They were free to respond spontaneously and were also given probe sheets containing 66 items to help with the recall.

One to 18 specific items were identified as learning by 38 of the instructors. 50 distinct items were reported as subject of learning by the instructors. No one item was reported as a subject of learning by a majority of instructors.

The items learned were classified as directly related to the teaching/learning interactions or items supporting the teaching/learning interaction. (See Table I).

TABLE I

Twenty Items Most Commonly Reported

Directly related items	Support items
---Top ten---	
Lecturing techniques (17)	How to prepare lessons (2)
Encourage student participation (17)	Fundamentals of subject (19)
Questioning techniques (14)	How to time lessons (17)
How to work with students at different levels (12)	How to mark student work (14)
	How to prepare course outline (12)
	How to prepare tests (12)
---Next ten---	
How to motivate students (10)	To conduct a class with just an outline
Different teaching techniques (9)	Construct student assignments (6)
Interpret student body language (9)	
To use examples (7)	
To build self-confidence in students (7)	
Communication skills (7)	
To challenge students (7)	
To use case studies (6)	

(Note: ( ) indicates number of people who learned item.

Four instructors engaged in other-directed learning. Direction came from an administrator, another instructor or a spouse. None of the learning was done before the first class. Two instructors had their learning directed through a college sponsored instructional techniques course.

78% of the sample engaged in self-directed learning. They learned a total of 78 items (average 2.4 per instructor). The most commonly learned item was the fundamentals of the teaching subject followed by preparation of course outlines, lesson and tests. 83% of the sample reported unplanned learning.

The instructors reported using 19 different learning modes of which the most common was trial and error, $\underline{F} = 144$. This was followed by talking to others, $\underline{F} = 115$; and reading a book or article, $\underline{F} = 51$. Further analysis indicates that it is most likely for a part-time teacher to talk to the following people:part-time teacher, $\underline{F} = 31$; own students, $\underline{F} = 21$; full-time teacher $\underline{F} = 15$.

At various times the sample was grouped according to sex, age, motivation for teaching, educational background, presence or lack of orientation, informal teaching experience and length of course taught. Analysis of the data (t test not assuming equal variances) indicated that the instructors from the college most highly represented learned fewer items $\underline{t}(35) = -2.274$, $p < .02$; the business instructors reported learning more items $\underline{t}(38) = 2.727$, $p < .009$; and those who were hired 3 - 4 weeks before class also reported learning more items, $\underline{t}(9)$ - -2.14, $p < .06$. No other significant differences were found.

DISCUSSION

The study has indicated that the new part-time continuing education instructors do engage in learning about the teaching/learning process. The content of the learning is diverse and the learning is done under very adverse circumstances.

The most prevalent mode of learning was trial and error. Factors which may contribute to its frequent use are: little time to prepare for teaching, lack of information about teaching and resources to learn about teaching, lack of orientation to a new job, lack of contact with other college instructors, lack of available resources and a lower priority given to a part-time job than full-time employment and family responsibilities.

Discussion with others was used as a learning mode. Most often the new instructors discuss teaching with other part-time instructors. There is no evidence to indicate that the latter are good instructors or have more experience or training than the instructor. It may be a case of the inexperienced helping the inexperienced.

The instructors could be categorized in four ways: dissatisfied, satisfied, frustrated and ignored. The dissatisfied all worked on satelite campuses and seldom had any contact with college personnel. The frustrated were seeking help, caring and support from the college. They found their phone calls seldom returned and that the college initiated little, if any, contact with them. The satisfied group were initiators who felt it was their responsibility to seek out people or help. The ignored used the college only as a place to meet their class. They used resources outside the college for any answers or caring.

The instructors made recommendations for help and services for other new part-time instructors. These have been combined with findings of the study and some general philosophies of adult education into the following 10 point model of professional development for new part-time instructors.

1. Interviews. All part-time instructors would receive at least a 15 minute interview during which time the teaching/learning process along with the course content would be discussed.

2. Hiring. Hiring would be done 3 - 4 weeks before classes began. This might be conditional on student enrolment. This gives the instructor time to reflect and organize the focus of the course as well as locate resource material, and talk to others about teaching and learning.

3. Orientation. All new part-time instructors would be encouraged to attend an orientation session that would be equally divided between administrative matters and some aspect of the teaching process. The format should be an instructional model for the new instructors.

4. Meet other instructors. The college should ensure that all part-time instructors meet at least one other part-time instructor. It would be preferable to meet several and in the same subject area. This meeting should be arranged to give the instructors time for some meaningful dialogue.

5. Role models. Arrangements should be made for the instructor to observe at least one master teacher in the classroom. It would ideally be in the same subject area and with the same type of students.

6. Communication. There should be an emphasis on college-initiated communication with all new instructors. During the first two years the oral communication should shift from college initiated to instructor initiated.

7. College expectations during the interview. The college should enunciate its minimal learning expectations for the new instructors. These expectations would be accompanied with suggested available resources and would also be cognizant of the fact that teaching is a part-time job for the instructors.

8. Individual learning plans. There would be a mid-semester meeting with each new instructor. If at this time the instructors express a wish to teach future courses and if the college felt the opportunity for such teaching would arise within the next year, time would be spent (then or at a later arranged time) developing a learning plan for the next year. The content of the plan would focus on the skills and knowledge of teaching applicable to his/her subject area.

   The instructors' major task would be to identify some learning objectives and the major task of the college would be to suggest resources to facilitate the learning. At all times the fact that this is a part-time job should be kept in mind.

9. Formal learning. The colleges should provide a course in Teaching Adults and a series of 2 - 3 hour seminars. New instructors would have the opportunity to access these as their personal schedule and learning style permits. The college might, as part of an instructors learning plan strongly encourage attendance at one or more of these.

10. Evaluation and Feedback. Each new instructor would be evaluated in the classroom at least once. The purpose and the philosophy of such an evaluation would be developmental. This evaluation would be followed up

within a week by a personal discussion between the instructor and the observer. The outcome should be an increased confidence on the part of the instructor, a deeper insight into the teaching/learning process and a motivation for a further learning. This feedback should help the instructor formulate learning objectives.

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DEPENDENCY VS. AUTONOMY IN ADULT SECOND LANGUAGE LEARNING

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INTRODUCTION

The purpose of the study was to broaden and generate adult learning theory by studying conditions under which adults successfully learn second languages. Sixty adult second language learners were interviewed with a protocol that focused on factors identified by Curran (1976): a) adult dependence on the language expert; b) adult resistence to learning in the dependency relationship; c) adult anxiety in the face of the strange sounds and structures of the new language. Central to Curran's theory is the concept that the adult learner consciously or unconsciously struggles to maintain autonomy in the face of a learning experience that imposes a state of dependency by the nature of the content itself and by the teaching methods that such learning is traditionally subject to.

The Curran model grew out of second and foreign language learning laboratories in which he observed adults learning languages in semester long periods over some ten years. The dependency-autonomy conflict is not a new concept to adult education (Knowles, 1970; Freire, 1970; Tough, 1971). Link-the dependency-autonomy conflict to adult second language learning in an effort to account for some of the difficulties adult experience in learning a second language, however, is an original contribution of Curran. It is a contribution that should be thoughtfully considered by the fields of Adult Education and Linguistics.

METHODOLOGY

The methodology used in this research is descriptive and qualitative. It includes the personal bent of the researcher as well as his ability to make theoretical sense out of this particular area of learning (Glaser and Strauss, 1967). Having learned a second language as an adult and having taught foreign and second languages, the researcher's eye for significant learning episodes and events enters into the method.

The point of departure for this study are the successful adult second language learners themselves--their own experiences, insights and feelings. Sixty adult second language learners were identified with non-random techniques which included newsletter announcements, personal recruitment at meetings of teachers of English as a second language and retired Peace Corps Volunteers of Chicago. The sixty volunteers from 19 to 58 years of age were asked to participate in the study based on three criteria: 1) they currently are or formerly were fluent in a second language; 2) they had learned the language as adults; 3) they had not been raised in an environment where the language was spoken nor had studied it as an academic discipline in elementary or secondary school.

An attempt was made to form two subgroups of the volunteers to control for the effects of culture. Thus one group was composed of foreign born subjects whose second language was English and another subgroup of Americans who learned other second languages. Other variables such as sex and prior education were not as easy to control due to the volunteer nature of the sample.

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On the variable of years of formal schooling, the sample is skewed in the direction of the American subjects who all attained a college degree with over half holding graduate degrees. In contrast, the foreign born who learned English as a second language had an average of 9.5 years of schooling with a range from no years of school to a graduate degree (counted for the purpose of this study as 18 years).

Each prospective subject completed a 15 item pencil and paper self-assessment instrument describing 13 situations in which one typically employs linguistic skills (Jakobovitz, 1970). The purpose of the self assessment was to estimate the subject's communicative competency level in the second language. The self-assessment served an added function of a second level screening device.

All interviews were conducted by the researcher according to an open-ended, 14 question interview protocol developed from learning factors identified by Curran (1976) and later validated by a jury of six international experts from the field of linguistics and language learning and finally pilot field tested. The interviews were tape recorded. Since some of the questions involved considerable reminiscence on the part of the subject, general questions were often followed by further probing from the researcher. The interviewer's objective was to invite unstructured responses, describing in detail the subject's second language learning experiences. Here, the researcher himself became part of the data gathering instrumentation (Glaser and Strauss, 1967).

The tape-recorded interviews were later transcribed, highlighting narrative material considered to bear significantly on the focus of the study. Hence the typed transcripts were not literally transferred from tape to paper, but were a stage in the analysis. The researcher then reviewed the typed transcripts to underline words and phrases that were seen to be affective or cognitive indicators of the dependency-autonomy conflict in the adult language learner.

Highlighted sections of the narrative were then listed on cards which were later grouped together in categories. If the narrative read "my purpose in learning Malay was to cope and survive in Kuala Lumpur and become part of the culture," the subject's purpose would be categorized under two headings: *survival* and *cultural integration*. If the subject stated, "I learned French to live in France and to have a cultural experience," the purpose would be categorized as *cultural exchange*.

FINDINGS

Why Adults Learn Second Languages

Answers to this question were long and unstructured. After preliminary analysis, they clustered in five main areas listed below in the order of their importance judged [illegible] the frequency of their appearance:

For vocational/occupational reasons
To survive in the adopted culture
[To fulfill a religious commitment]
To experience a cultural exchange
To become integrated into the host culture

The third area of reasons is bracketed because it seems to have emerged as a quirk of the sampling rather than being representative of the population.

Because the interviews were open-ended, some subjects listed several reasons for deciding to learn a second language while others listed one reason. Analysis according to frequency was therefore inappropriate.

Subjects were also asked to describe their use of the language after or during the learning period. The categories that emerged repeated in large part those given as reasons for deciding to learn in the first place, as was expected. However, the vocational/occupational category appeared stronger as did the survival category. A category not included above was to develop and maintain social contacts.

Time Spent Learning a Second Language

Subjects reported on the time they thought it took them to reach a threshold level in the language--a competency level that would enable them to function in the host culture. Here responses varied widely. The range was 3 to 108 months. The variables contained in the time category are so numerous as to render the category meaningless. There were part-time learners, full time learners; languages learned varied in difficulty. However, it was seen that subjects took longer to learn the same second language in bilingual environments where one of the languages was know by the subject than in a monolingual environment.

Vocation/occupation popped up again in the time category. If a subject did not require the use of the second language in his work situation, time of learning seemed to be protracted and the level of proficiency reduced. An example of this apparent relationship can be seen in the case of a nurse who worked as an operating room supervisor in a Zulu speaking area of South Africa. The operating room was staffed by American and British doctors and English speaking South Africans who spoke only English in the operating room. Although she was highly motivated to learn Zulu for social and religious reasons, it took her seven years to reach the threshold level.

In contrast, subjects who needed the language for their work, such as those who used it for communicating religious or spiritual concepts, were seen as proficient learners. This might be due to their high linguistic skills in their native language or because their ability to communicate in the second language was essential to their work. Yet, this same work-language relationship emerged in the case of a semi-literate Mexican immigrant who reported his best learning took place while he was employed in a Holiday Inn where he was the only non-English speaker. His work was largely manual labor, yet he considered that period an intense language learning experience.

Resource Person

Subjects were asked to describe their learning in terms of use of a resource person. A resource person was defined as one knowledgeable in the second language whom the subject consulted on a regular basis.

Made use of paid professionals
Did not use a resource person
Received help from friends
Received help from family members or relatives
Received help from a non-professional tutor

The fact that 75% of those interviewed used paid professionals may be a function of the way the population was sampled. The criteria for selecting the population did not exclude formal second language learning, but it did emphasize the non-formal learner. Yet, due to volunteer recruiting methods the sample might not be representative. Even those who began their learning without a resource person later formed some relationship with a resource person either in a formal instructional program or by securing the assistance of a professional or non-professional tutor. There were rare cases where the person reached threshold level in the second language through informal learning without a resource person. At the time of the interviews, however, that type of learner had engaged in some type of formal learning situation to repair mistakes in grammar or improve poor pronunciation. There was virtually no exception to this pattern.

The next set of questions relates to psychological variables intended to shed some light on the autonomy-dependency tension in the adult language learning process. Subjects were asked to relate perceptions of their own learning experiences at the beginning and at an advanced stage or period of their learning. This was done in order to see if any progression akin to Curran's learning stages could be discerned.

How Learning was Planned

When asked how the planning of their learning was done in terms of specific content and sequence, the following categories emerged:

Planning done by a professional teacher
Planning done by the learner
Unplanned, situational learning
Unplanned, situational learning in an occupational context

The above categories emerged from descriptions of the beginning of the language learning experience. The advanced period of the learning experience revealed the same categories, but in a different order:

Unplanned, situational learning
Planning done by a professional teacher
Unplanned,situational learning in an occupational context

Self Perceptions of the Learner

Subjects were asked to describe perceptions and feeling of themselves as second language learners in the beginning of their experience and at an advanced period. In the beginning period they described themselves as learners in both negative and positive terms. They described themselves as frustrated, childish, insecure, foolish, embarrassed, belittled, humiliated. They also described themselves as enthusiastic, confident, comfortable and pleased.

In the advanced period, however, second language learners described themselves more consistently in positive terms such as proud, pleased, comfortable and confident. Corresponding negative comments were less frequent. Curran (1976) had theorized that adult learners pass through five psychological stages during the second or foreign language learning process with each stage characterized by some aspect of the dependency-autonomy conflict. The subjects of this study reported experiences that seemed to be indicative of two stages. Figure 1 on the next page illustrates the comparison between the findings of this study and Curran's five stage model.

Based on the experiences of the participants in this study, the first stage or period was described in cognitive terms as one of intense work--sheer drudgery, as one subject put it--in which the learner, though highly

I	II	III	IV	V
Total dependency →	Learner attempts to move ahead independently →	Learner functions independently in the language →	Learner becomes open to correction →	Positive self concept; fully autonomous learning
Embryonic stage →	Self assertion stage →	Separation or birth stage →	Reversal stage →	Adult stage

Curran (1976:105)

Long period of struggle in learn-characterized by frustration and insecurity →	Period when the learner begins to feel secure in the language and pleased with self
Initial struggle →	Breakthrough
I	II

Figure 1: A comparison of Curran's five stage adult second language learning model and learner experiences described in this study

motivated, frequently felt frustrated and foolish in the learning situation. There then seemed to occur a breakthrough period reported most often by those whose learning had occurred in an intense, monolingual setting. This breakthrough experience accompanied the adult learner's arrival at a threshold level of linguistic competency where the learner found it relatively easy to communicate. As one ex Peace Corps Volunteer put it, "It is the sudden realiztion that you are keeping up with the conversation without trying." Others described it as a liberating moment. It seems to be an experience that occurs or is reported to have occurred more often by well educated, highly motivated learners. Not all subjects interviewed reported this experience. Those who did described it as a very dramatic event which they had no trouble remembering. It was an experience reported less often by those whose learning occurred in a bilingual setting where one of the languages spoken was either the learner's native language or a well known second language.

Those who elaborated most on the feelings of frustration and loss of self-esteem in the initial period of learning were subjects who were as a rule above average in educational attainment, had filled leadership roles, and were highly motivated. A subject who holds a PhD degree described the early stages of his second language learning experience as an "assault on his self-image." A Roman Catholic clergyman reported his early learning period as a "torturous time" when he felt like a "child or an idiot." He also reminisced about his frequent avoidance tactics in the classroom learning situation.

DISCUSSION

The most surprising category to emerge from this study is the apparent relationship between occupation and second language learning. Subjects who needed the second language in work situations reported large learning gains and low resistence to learning. Occupation appeared strongly related to the motivation to learn, from the initial decision to the learning process itself. Subjects who had attended formal language learning institutes described how the occupation that awaited them at the end of their formal learning influenced their learning at every stage.

Survival in the host culture did not appear to be as strong a motivator as occupation, although it was among the three dominant categories to emerge. This was contrary to expectations; survival had been predicted to be the most dominant category.

The importance of occupation in second language learning was also seen from its converse. When occupation was divorced from second language learning, as in the case of technicians whose work brought them in constant contact with English speakers, or teachers in an English speaking school or university, protracted learning and a lower degree of fluency was reported. The necessity to cope and survive in a host culture did not of itself lead to fluency.

Finally, adults who learned a second language in a bilingual setting reported less experience of anxiety and frustration. They also did not report the "breakthrough" experience of arriving at a threshold level. At the same time, adult learners in bilingual settings reported lower proficiency levels and were actually observed to be less fluent, Spanish speaking immigrants living in ethnic enclaves, than learners in monolingual settings.

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MANAGERIAL PHILOSOPHY AND ADULT LEARNING PRINCIPLES: TRAINING AND DEVELOPMENT PROFESSIONALS AS MANAGERS OF COLLABORATIVE LEARNING

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This study investigated training and development professionals who were members of the American Society for Training and Development as managers of collaborative learning. The purpose of the research was to determine what relationships existed between the subjects' respective managerial philosophies, as evidenced by Theory X and Theory Y cosmologies, and their acceptance and practice of adult learning principles which generally support the collaborative or participative teaching-learning mode. In addition, the variables of years of formal education, age and size of organization served by these training and development professionals were examined with the primary variables within a multiple correlation context. Other components of the data analysis included factor analyses and reliability analyses of the two research instruments--Managerial Philosophies Scale(1) and Principles of Adult Learning Scale(2)--to determine the instruments' construct validity and internal consistency respectively.

The sample for the study consisted of 99 volunteer ASTD training and development professionals who represented four Midwestern chapters of the organization as well as national members unaffiliated with any local chapter membership. Volunteer subjects were asked to complete two self-assessment inventories and a personal information instrument during a 20-45 minute testing session administered by the investigator. From these three instruments data were obtained dealing with each person's managerial philosophy, years of formal education, age, organization size, and relative acceptance and practice of adult learning principles supporting a collaborative teaching-learning mode.

DATA ANALYSIS

The data from the volunteer ASTD respondents were analyzed using the information provided from previous testing sessions. Of prime importance in the analysis was the influence of managerial philosophy on the acceptance and practice of adult learning principles supportive of a collaborative teaching-learning mode. Beyond this, the investigation considered the effects of several other continuously occurring variables (years of formal education, age, and size of the organization) as factors influencing the primary relationship. Scores for measuring managerial philosophy and acceptance and practice of adult learning principles supporting a collaborative teaching-learning mode were converted to standardized scores and used as such throughout the data analysis. The .05 level of significance was employed to accept or reject the statistical hypotheses proposed for the study.

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Factor Analyses of the Managerial Philosophies Scale

Two factor analyses were initially conducted on the *Managerial Philosophies Scale* to determine if it was measuring the same constructs of Theory X and Theory Y in this population as indicated by the researchers who originally developed and tested the instrument. Results from these analyses showed that the first few factors which were generated accounted for only 31.8% of the total explained variance. Furthermore, items which had previously been identified as supporting Theory Y assumptions seemed to lact substantial strength and homogeneity among the responses of the present population. Since the instrument was found to be multifactorial and lacking in homogeneity, a second procedure (Cronbach-Alpha analysis) was applied to ascertain if the items found in the instrument retained sufficient homogeneity to be used for the remainder of the study.

Reliability Analyses of the Managerial Philosophies Scale

Two Cronbach-Alpha reliability analyses were next carried out on the *Managerial Philosophies Scale*. Intended to assess the instrument's internal consistency, the first analysis tested responses to all 36 items and determined a reliability coefficient of $r = .719$. The minimum acceptable standard for reliability had previously been established at $r = .70$. In the second analysis the individual Theory X and Theory Y scales were checked for internal consistency. Results of these procedures attained a reliability coefficient of $r = .891$ for the Theory X scale and $r = .751$ for the Theory Y scale. Since $r = .70$ was again designated as minimum reliability, it was decided to proceed with the data analysis of the study using total scores of the *Managerial Philosophies Scale* as prescribed by the original researchers.

Factor Analyses of the Principles of Adult Learning Scale

The *Principles of Adult Learning Scale* was also subjected to two factor analyses to determine if the constructs of "collaborativeness" and "noncollaborativeness" were being measured in the present population in the same manner as they were in the originally tested population. The total amount of explained variance found in the first few factors was only 34.8%, and the overall strength and homogeneity of the "noncollaborative" items seemed to be questionable. As in the case of the first instrument, a reliability analysis of the *Principles of Adult Learning Scale* was prescribed in order to justify using total scores of the instrument within the context of the study.

Reliability Analysis of the Principles of Adult Learning Scale

A single Cronbach-Alpha reliability analysis was conducted on the *Principles of Adult Learning Scale*. Testing the instrument's internal consistency, the analysis focused on responses to all 44 items in order to determine if the collaborative and noncollaborative parts of the instrument were, indeed, distinct from each other. With $r = .70$ serving again as the minimum reliability standard, the resulting coefficient of $r = .866$ was considered adequate and precluded the need for further analysis. Scores from the Principles of Adult Learning Scale were, therefore, used in their entirety for the remaining statistical analyses.

Analysis of Zero Order Correlations

A correlation matrix showing the primary Pearson Product Moment correlations among the research variables was produced to facilitate investigation of the existing inter-variable relationships. In particular, the study focused on the relationships between the dependent variable and each of the four independent variables, i.e., scores on the Principles of Adult Learning Scale with scores on the Managerial Philosophies Scale, years of formal education, age, and size of the organization served by ASTD training and development professionals.

Findings Concerning Hypothesis I

Hypothesis I: There is no significant relationship between Theory X and Theory Y management beliefs of ASTD training and development professionals and the degree to which these professionals personally accept and practice adult learning principles which support the collaborative teaching-learning mode.

Results of the statistical analysis indicated that a significant relationship existed between these two variables with $r = .538$, $p < .05$. With this relationship existing among the sample population, the null hypothesis was, therefore, rejected. On the other hand, the research hypothesis stating that "there is a significant relationship between Theory X and Theory Y management beliefs of ASTD training and development professionals and the degree to which these professionals accept and practice adult learning principles which support the collaborative teaching-learning mode" was upheld.

Findings Concerning Hypothesis II

Hypothesis II: There is no significant relationship between years of formal education of ASTD training and development professionals and the degree to which these professionals personally accept and practice adult learning principles which support the collaborative teaching-learning mode.

The statistical analysis of this correlation indicated a significant relationship existing between these two variables with $r = .293$, $p < .05$. Based on these findings, the null hypothesis was rejected. However, the research hypothesis stating that "there is a significant relationship between years of formal education of ASTD training and development professionals and the degree to which these professionals personally accept and practice adult learning principles which support the collaborative teaching-learning mode" was supported.

Findings Concerning Hypothesis III

Hypothesis III: There is no significant relationship between age of ASTD training and development professionals and the degree to which these professionals personally accept and practice adult learning principles which support the collaborative teaching-learning mode.

The statistical analysis of the correlation between these two variables indicated that there was no significant relationship with $\underline{r} = .060$, $\underline{p} > .05$. The null hypothesis that no significant relationship exists between these two variables was, therefore, retained.

Findings Concerning Hypothesis IV

Hypothesis IV: There is no significant relationship between size of the organization served by ASTD training and development professionals and the degree to which these professionals personally accept and practice adult learning principles which support the collaborative teaching-learning mode.

Results of the statistical analysis indicated that no significant relationship existed between these two variables with $\underline{r} = .090$, $\underline{p} > .05$. It was, therefore, necessary, to retain the null hypothesis stating that no significant relationship exists between these two variables.

Multiple Correlation Analysis

A general multiple correlation analysis technique was performed on the data in which the regression of the dependent variable on the four independent variables was computed. The dependent variable was represented by scores on the *Principles of Adult Learning Scale*, and the independent variables were scores on the *Managerial Philosophies Scale*, years of formal education, age, and organization size.

Findings Concerning Hypothesis V

Hypothesis V: There is no significant relationship between the combined effects of managerial philosophy, years of formal education, age, size of the organization, and the degree to which ASTD training and development professionals personally accept and practice adult learning principles which support the collaborative teaching-learning mode.

Results of the statistical analysis indicated there was a significant combined effect of the independent variables on the dependent variable, acceptance and practice of adult learning principles which support the collaborative teaching-learning mode, $\underline{F}\,(4,94) = 11.191$, $\underline{p} < .05$. Total explained variance of the combined effects of the independent variables was computed to be a squared-multiple correlation value of $\underline{R}^2 = .322$. Adjusted for shrinkage, $\underline{R}^2 = .294$. The research hypothesis stating that "there is a significant relationship between the combined effects of managerial philosophy, years of formal education, age, size of the organization, and the degree to which ASTD training and development professionals personally accept and practice adult learning principles which support the collaborative teaching-learning mode" was supported.

Concerning the contributions of each independent variable to the dependent variable, it was found that the variables of managerial philosophy and years of formal education were significant contributors. The remaining variables of age and organization size failed to show significance as individual contributors at the minimum significance level of .05.

CONCLUSIONS AND DISCUSSION

As a result of the study's findings, several conclusions were drawn concerning ASTD professionals serving as managers of collaborative learning. First, there was a significant negative relationship between Theory X or Theory Y management beliefs of ASTD training and development professionals and the degree to which these professionals personally accept and practice adult learning principles which support the collaborative teaching-learning mode. The percentage of variance in acceptance and practice of the collaborative mode determined by managerial philosophy was approximately 28.9.

Since low standardized scores on the Managerial Philosophies Scale (less than 50) represented a Theory Y orientation and high scores on the Principles of Adult Learning Scale (greater than 50) indicated a relative acceptance and practice of collaborative techniques, the negative relationship seems to support the contention that Theory Y oriented ASTD professionals tend to be collaborative in an instructional setting. On the other hand, since high standardized scores on the Managerial Philosophies Scale (greater than 50) pointed to a Theory X orientation and low standardized scores on the Principles of Adult Learning Scale (less than 50) indicated a relative nonsupport of the collaborative teaching-learning mode, it would seem that Theory X oriented ASTD professionals are less likely to employ collaborative instructional techniques than their Theory Y counterparts.

These findings seem to concur with Douglas McGregor's original theories in which he described the sets of assumptions about human nature that correspond to Theory X and Theory Y oriented managers.(3) Since the collaborative/participative instructional mode as outlined by various authorities in the area of adult learning calls for considerable learner involvement and freedom from instructor dominance, a Theory Y oriented ASTD training and development professional would be more likely to support this mode than one who tended to espouse Theory X assumptions.(4,5,6,7,)

A second finding of the study concerned a significant positive relationship between years of formal education of ASTD training and development professionals and the degree to which these professionals accept and practice adult learning principles which support the collaborative teaching-learning mode. Approximately 3.1% of the variance in the dependent variable was explained by formal education. ASTD training and development professionals having more formal education tended to be more collaborative.

A third finding of the study determined that the combined effects of managerial philosophy, age, years of formal education, and organization size had a significant influence on the degree to which ASTD professionals accepted and practiced adult learning principles which support the collaborative teaching-learning mode. The amount of variance in acceptance and practice of the collaborative mode by ASTD professionals which was explained by the combined effects of all four independent variables was approximately 32.2%. The contributions of the individual variables in a multiple correlation context accounted for varying amounts in the overall determination of collaborativeness among ASTD professionals. The single variable offering the greatest contribution to the study was managerial philosophy (28.9% of the explained variance). This was followed in descending order by formal education (3.1%), age (0.2%), and organization size (0.0%).

In discussing the results of this study, it should be reemphasized that the participants for the study were all volunteer subjects. In evaluating the findings, the nature of their volunteer status could have measurable significance in determining both Theory X/Theory Y orientation and collaborativeness/noncollaborativeness in the sample.

Finally, the results of the factor analyses of the *Managerial Philosophies Scale* and *Principles of Adult Learning Scale* seemed to suggest that in the present population each instrument potentially consists of many more constructs than were initially specified by the original researchers. However, the relatively small number of subjects in the study (N = 99) could have had an influence in these findings from the two factor analyses.

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PROVISION; INTER-RELATIONSHIPS; POLICY: A SURVEY OF FORMAL AND INFORMAL ADULT EDUCATION IN THE NORTH WEST OF ENGLAND

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1. Introduction

Adult and continuing education in England and Wales has been made available over the past hundred years by a heterogeneous range of providers: universities, local government authorities, and one or two key voluntary organisations being among the most prominent. There has been support in various forms from public funds, but little sense of acknowledged and coherent purpose in this provision. Adult education has remained marginal to the national system of initial education; it has been identified in the public mind with a series of simple mental images - basket-making or flower-arranging for housewives, badminton or philosophy for middle-aged executives, ballroom-dancing, local history or yoga for the elderly. Since the Education Act of 1944 the local government authorities have been charged with the ill-defined "duty . . . to secure the provision for their area of adequate facilities for further education." However, at times of national economic recession (as currently in 1981), and of pressure to reduce public expenditure, it is common for local authorities to reduce their provision of adult education by one means or another, normally by increasing the fees charged to students or by cuts in the number of teachers.

In 1977, as a response to years of well-mannered requests from adult education lobbyists, the British Government established the Advisory Council for Adult and Continuing Education (ACACE) for a three year period "to advise generally . . . and in particular to promote the development of future policies and priorities, with full regard to the concept of education as a process continuing throughout life." Towards the end of 1978 the Advisory Council decided that it needed a major survey of the total provision of adult and continuing education in an English region before it formulated policy recommendations for Government. It wanted results quickly; at the time at which the idea of the survey was conceived the Council did not know if its own existence would be continued beyond 1980. By late 1979, when the survey was underway and its design set, the Council was informed that it had a further three year lease of life until 1983.

After inviting competitive bids for a research contract from a small number of universities in the north of England (a practice unusual in British educational research), the Advisory Council placed a contract with the University of Lancaster in April 1979 for a survey of "the whole range of post-initial educational institutions and agencies in the North West of England" to be completed and reported upon by late 1980. The national Department of Education and Science was formally the body which provided the Project grant. The Lancaster research team adopted the title of the Post-Initial Education (PIE) Project from a current Advisor Council consultative document, the authors of which had used the terminology of

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*Keith Percy, Cartmel College, University of Lancaster, Bailrigg, Lancaster LA1 4YL, ENGLAND "post-initial education" to signify the main core of adult education provision - as they conceptualised it - in which adults study with a range of purposes different from those of the children and young people engaged in the initial education system, and probably "after a substantial break from the initial stage".(1)

2. Objectives and Definitions

Formally the Project was given three objectives:

(a) to delineate a model of the whole range of post-initial educational institutions and agencies and their inter-relationships in the North West of England

(b) to identify, and to provide information about, the barriers to the development of provision involving a greater proportion of the adult population

(c) to deduce from the descriptive and analytical evidence of the model key indicators affecting the growth and development of post-initial education

The North West of England was defined by the Advisory Council in administrative terms to include the areas of eighteen local government authorities in Cumbria, Lancashire, Greater Manchester and Merseyside - a region which includes two large metropolises, decaying mill towns, farming and suburban rural areas, densely planned new towns and the scenic beauty of the English Lake District.

The three formal objectives prescribed for the Project give clear indication of the policy concerns of the Advisory Council. Its members felt that their ignorance of the range of providers of education for adults, and of the manner in which they inter-acted on the ground in making available educational opportunities to adults, was considerable. They hoped that the data emerging from the survey could be organised into a series of dynamic models which would represent the origins and processes of provision in the region, and would point up the systematic or disjunctive relationships between the various providers. The Advisory Council expected that information on the major barriers to the development of provision would enable it to make policy recommendations to the providers; and that advice on "key indicators" would enable it to suggest to them, particularly to the local authorities, improved means of gathering statistical information on provision that might, in its turn (as a latent function) actually lead to improvements in the provision itself.

After a long and difficult debate the Project team defined "post-initial educational institutions and agencies" as involving

(i) adults aged 18 years and over

(ii) individuals making systematic attempts over time to learn and retain what has been learned

(iii) learning materials and/or a framework for regular study/practice/participation made available by a "provider" (which is a wide definition and includes informal clubs and societies)

(iv) purposes which are distinguishable from those of the initial education system.

This definition intentionally included a great range of different kinds of providers and extended beyond the providers (e.g. the universities and local authorities) who normally feature in adult education discourse. The Project decided to work with a taxonomy which classified providers in relation to their financial/legal/administrative nature and their organisational goals rather than to the aims and content of courses or modes of teaching. This gave a five-part br classification of providers:

(i) Public authorities (including, for example, cultural and leisure sponsors, media and others, apart from local authorities and universities)

(ii) Voluntary organisations

(iii) Vocational training system agencies

(iv) Community development agencies

(v) Private agencies

3. Fieldwork and Findings

The detailed research design involved the Project team in data collection and fieldwork at three "levels" between September 1979 and September 1980. At the first level of enquiry data was collected from the whole North West region by "desk research", visits and institutional/agency questionnaires in order to build up a systematic picture of post-initial education provision and its workings. At the second level, the research team investigated in more detail five sub-areas of the Region, of varying sizes, chosen to cover a range of geographical, economic and administrative types. In these area studies a major part of the research effort was devoted to a survey of participants in post-initial education - students, teachers, organisers, providers. The survey, conducted by questionnaire and interview, was concerned with questions of access, relevance and extent of provision, finance and inter-relationships between agencies over the current and preceding five years. The third level of enquiry was concerned with "topic" studies - qualitative case studies of particular innovations or examples of "good practice" and reports on particular issues which seemed pertinent and on which reliable data could be gathered relatively easily.

Thus a large amount of data was collected in twelve months in a relatively disciplined manner and the Final Report on the Project runs into hundreds of thousands of words and into several volumes. All of it will be published/disseminated by the Advisory Council; the main volume is an analytic overview and it is supported by volumes of free-standing reports on the area studies and on such topics as counselling, publicity, opportunities for ethnic minorities and for women, tutor training, inter-relations between post-initial education and libraries and museums and various other topics. In a summary paper of this nature, it is only possible to touch on some of the findings contained in these reports.

Section 2 of this paper indicates that we deliberately looked for post-initial education provision on a broad front, positing five sectors of providers and hypothesing that in each there would be post-initial education which accorded with our definition of it. We were more concerned with characterising the structure of these sectors, and the processes present there, than with taking a census of adults involved. Nevertheless, (and despite difficulties in interpreting statistics and in "guestimating" where statistics do not exist) we do estimate that in 1978-9, in the North West of England, between 20-25% of the adult population was participating in post-initial education. Some 8% were involved in the public education sector; perhaps 5% in vocational training provision (by government agencies, trades unions, employers, etc.); 5-7% in learning activities organised by voluntary societies, clubs, organisations (of all kinds: cultural, educational, religious special interest groups, political, social and environmental lobby groups); perhaps 2% in many kinds of learning provided commercially by private agencies and individuals; and 1% in the experimental and ad hoc learning activities to be found in the community development sector organised by neighbourhood councils, community associations, community arts groups and others.

We believe that this estimate of 20 - 25% is considerably in excess of previous estimates of adult participation in education in England. And, of course, it makes no attempt to take into account the possibility that large numbers of adults are engaged in autonomous learning or in independent learning projects that do not bring them into contact with a "provider".

A further (subsequently justified) hypothesis on which the PIE Project was grounded is that policy for post-initial education in England and Wales is a function of the field of provision. An account which illuminates the activities of the agencies and institutions that can be identified as providers will also shed light on the dynamics of policy-formation. For, given the marginal status of post-initial education in national policy, that currently takes place mainly on local and regional levels, with only a peripheral role for the agents of central government (of which ACACE has become one). One separate and tentative enquiry included within the Project research design was based on the selection of a panel of 20+ key "policy shapers" of post-initial education from the North West region. This panel was subjected to a three-stage investigation (telephone interview, policy predictions questionnaire, and twenty-four hour residential seminar) with the objectives of discovering their predictions for the future, the ways in which they would go about constructing local policy and their views on inter-agency co-operation. The exercise proved to be highly instructive because we could observe how these "policy-shapers" shifted between different levels of discourse according to the nature of the task and the constraints which we set for them. In one scenario they were content to be advocating national and regional co-operation between providers, consideration of educational objectives and innovative and expensive development. In another scenario, simulated to be closer to their everyday reality, they acted and talked in terms of political manipulation and local pragmatic possibilities.

A disjunction between aspirations and reality, between ideals and practice, permeates most of the model-building, and attempts to represent the interrelationships over time between providers, which have emerged from the PIE Project. As section 2 of this paper indicates, the primary objective outlined in the ACACE brief to the Project was that it should "delineate a model of the whole range of post-initial educational institutions and agencies" in the region. There are, of course, many different kinds of models that might be relevant - normative models which prescribe goals and procedures, descriptive models which provide a map of administrative arrangements and relationships, planning models suitable for extrapolating trends, critical/analytical models which would interpret provision through a theory-guided account of who benefits and who dominates, and others. We concluded that the ACACE brief was primarily asking for a descriptive representation of what we found, but also encouraged us to use our data to explore both normative and critical/analytical models as well.

Interestingly, one existing model of the latter type has been useful in helping us to understand the day-to-day processes and interrelationships between providers. Most of our informants (particularly in the public sector), including the "policy-shapers" referred to above, have agreed that the situation for providers of post-initial education 1975-1980 in the North West of England has been one of a contraction of real resources and a growth of uncertainty about professional futures, institutional stability and trends in student recruitment. Nevertheless, they normally refuse to acknowledge that agencies are or should be in a state of competition, and assert that inter-agency co-operation is the only strategy rationally acceptable for providers. We find that Kenneth Benson's (2) account of control strategies in situations of market competition is useful in explicating the network processes that we observe to be in operation among North West providers. Benson argues that competing agencies providing similar services in adjacent or overlapping areas adopt one of a set of available strategies in order to settle issues of market share. In our case, this is as true of the competition to recruit and to retain students as it is of the competition for material resources or for public recognition. Benson characterises four network control strategies: the co-operative, the authoritative, the manipulative and the disruptive.

There are examples of all four strategies at work in post-initial education provision in the North West; often several are in play in one network - this appeared to be particularly true in the public education sector. The vocational training sector (in which one large government agency has statutory responsibility and funding power for a large quantity of provision) seemed particularly consonant with Benson's characterisation of authoritative control, in which a network is hegemonised by one provider much stronger than the others. In the smaller and less stable networks of what we called the community development sector, we saw examples of the disruptive strategy, in which agencies act together to downgrade or to remove from visibility one of their fellows.

4. Policy implications

There has not been the opportunity in this short paper to explore further the attempts the Project team have made systematically to interpret their findings. Nor has it been possible to discuss the ways in which we have sought to meet the second and third objectives set in the ACACE brief, i.e., the identification of barriers to the development of increased provision and the deduction of key indicators affecting growth of provision. In the case of both of these objectives there is a close association with the immediate policy concerns of the Advisory Council; it wanted from us reasonably clear-cut findings and recommendations which could be fed back to providers and practitioners. We therefore had to accept not only that we should engage in theory-guided model-building but also in pragmatic advice to the field which necessarily combined our findings with our own value judgements and experience. One of the later chapters of our main report contains a series of recommendations ranging from an ambitious call for centralised policy directives for post-initial education to comments on the nature of appropriate tutor training, accommodation and publicity. Our suggestions of key indicators are self-conscious attempts to advise major providers such as local authorities to collect information on their provision other than student numbers and tuition hours.

It has been impossible for us as a research team, reporting to a body charged with the responsibility of advising Government on policy, to be unconcerned about how our findings might be interpreted. Any reasonably well-informed observer of British adult education can discern from the statements of ministers,and of publicly elected representatives in local authorities,policy straws-in-the-wind. The education service is required to make savings under the current Government (as are all spending services) and the education of adults is seen as a much lower priority for public expenditure than the education of children and young people. Doubts are expressed about the value and quality of some publicly financed adult education and about the efficiency and cost-effectiveness of the forms in which is is provided. The danger that we see for the reception of our research reports is that we shall be judged to be saying more than we are. For example, one of our most accessible conclusions is that there is much more provision of educational activities for adults by a wider variety of providers (particularly voluntary organisations and private agencies) in our society than is commonly recognised. This could be taken by national and local government officers to provide a rationale for reducing the quantity and extent of publicly-financed provision. In our view no such policy would be justified: we can say little in our report about the comparative quality and nature of publicly and non-publicly financed post-initial education. Our own conclusions relate more to the possibilities of publicly-financed education for adults moving from classroom to community-based provision and to the need for full-time public adult educators to support and to co-operate with the other range of provision which we have emphasised.

Similarly our discussions of the disjunction between the ideal worlds of public adult educators (in which they applaud co-operation and complementarity of provision) and the everyday world (in which they engage in imperfect competition and may indulge in a variety of control strategies) could - unjustifiably - be taken to legitimate a reduction of publicly-financed provision of post-initial education. The safeguard, one might say, lies in our own hands: we must weigh carefully what we say and supply in full the normal academic caveats.

But we have written reports of many thousands of words. And we know that those who decide policy will only have time to read the headlines and summaries.(3)

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(3) The field-work and ideas of full-time members of the PIE Project team, Irene Willett, John Powell and particularly Steve Butters, which lie behind this paper, are gratefully acknowledged by Keith Percy, who was director of the Project.

Adult Problem Solving Training: An Experimental Investigation of Andragogical Counseling Techniques

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INTRODUCTION

There is a growing awareness of increased participation of adults in education and a corresponding need for counseling services. For example, some analysts have indicated a 20 percent increase in adult participation in education from the period of 1969 to 1975 (O'Keefe, 1977). Futurists' projections of the sheer numbers of adult participants are another indicator of the potential demand for counseling services. Not only is demand for counseling increasing in terms of quantity of service, but recent rapid shifts in the numbers of part-time and evening adult students require changes in the very nature of counseling services which were designed to serve younger, day students. Furthermore, shifts in andragogical modes of instruction which have placed more responsibility and decision making in the hands of adult students have not only contributed to the increased need for guidance during the learning process, but the need for novel approaches to counseling methodology as well.

Despite the overwhelming case for the need of and demand for adult counseling, there seems to be relatively little activity, particularly research, in this area. Grabowski (1975, p. 1) has described adult counseling as "the most impoverished, depressed, but developing area in the entire area of adult education." Grabowski's view is supported by Goldberg's recent review of the literature on counseling the adult learner from which she reached the following conclusions: "Despite the recent increased participation of adults in education and hence the growing demand and awareness of a need for counseling services to serve them, little systematic research could be found directed toward the many problems of counseling adult learners. Much of the literature is prescriptive or horatory and theoretical analyses are far better developed than the data bases needed to substantiate them" (Goldberg, 1980, p. 67).

The purpose of the present investigation was to specifically address the issues identified by Goldberg. The objectives of the project were two-fold: 1) to draw upon the available literature to delineate a counseling paradigm consistent with andragogical principles and a life span developmental perspective, 2) to systematically investigate the effects of implementing such a paradigm under controlled conditions.

THEORETICAL FRAMEWORK

There are a multitude of activities and approaches collectively grouped under the rubric of counseling. Everything from study skills to psychotherapy have been labeled as counseling. Obviously, no one method or approach can be applied across groups for all needs. The objective of this investigation was to delineate an approach to counseling which is consistent with both andragogical and life span development perspectives.

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A review of the counseling literature revealed that some counselors such as Krumboltz (1965) suggest that problem solving is of special concern to professionals who are interested in helping other people deal with issues that are particularly troublesome. D'Zurilla and Goldfried (1971, p. 107) have suggested that "because of the complex and ever-changing nature of our society, modern man finds himself confronted continuously by situational problems with which he must effectively cope in order to maintain an adequate level of functioning." The recent 1980 American Psychological Convention has confirmed these relationships of problem solving and counseling by incorporating problem solving into the very definition of counseling.

The problem centered orientation of adults to life and learning suggest that adult educators are also a group of professionals who are expected to help their "clients" solve problems (Knowles, 1973, Tough, 1971). In particular, adult educators have continued to express their concern for helping adults to diagnose, plan and implement life tasks and their subsequent learning tasks in a self-directed fashion (Houle, 1973, Knowles, 1973, 1975; Knox, 1977; Tough, 1971, 1978). Smith and Haverkamp (1977) have included elements of problem solving in the higher stages of the developmental steps in learning how to learn. Thus, problem solving seems to be both an essential skill and an approach to intervention which has and continues to receive increasing attention in both the counseling and adult education literature.

In attempting to develop an approach which will assist individuals confronted by problems, there are at least two levels of intervention: 1)expert assistance in identifying and selecting a specific response which will solve a particular problem, or 2)training in generalizable skills which will assist the individual to learn ways of identifying and selecting effective responses for a wide range of problems. Realizing that both approaches are viable and necessary, the latter seems most consistent with the tenets of life span development and self-directed learning (cf. Goldberg, 1980).

Although there seems to be no single agreed upon model of problem solving, there is some consensus on five basic components to the process (Heppner, 1978). Several studies have provided some empirical support for generalized training based on D'Zurilla and Goldfried's (1971) five-stage sequential model of problem solving (Mendonca and Siess, 1976; Dixon, Heppner, Petersen, Ronning, 1979; Petersen, 1979). In an effort not to perpetuate another counseling model and fulfill Goldberg's (1980) objective of expanding the empirical data base, the present study was designed to systematically investigate the effects of generalized problem solving training.

METHOD

Subjects

Eighteen adult undergraduate students (6 male and 12 female) volunteered to participate in a group problem solving workshop sponsored by the Guidance Center of Concordia Univeristy (Montreal). The average age of the subjects was 33.66 years (range = 19 to 58 years) and the average years of education was 14.8 years (range = 11-18 years). Subjects were assigned to one of two workshop groups according to the campus of the University at which they applied for participation (n= 9 in each group).

Problem Solving Workshop

The problem solving workshop consisted of six 1 hour sessions scheduled in consecutive weeks in the early afternoon or evening. The workshops were led by a certified counselor from the Guidance Center and the Director of the Adult Education Program. Throughout the workshop the facilitators served as models and employed role playing while illustrating application of the problem solving process. Group presentation and small group discussions were organized around five general problem solving stages (D'Zurilla and Goldfried, 1971): 1)problem definition, 2)information gathering and analysis, 3)generation of alternatives, 4)decision making leading to an action plan, and 5)evaluation. To facilitate the process of learning and applying the five stages, subjects were given a problem solving worksheet (Petersen, 1979). Workshop sessions were devoted to applying the worksheet steps to problem analogs and individual problems. Individual homework assignments were based on workshop content.

Dependent Measures

In an effort to assess changes in subjects' perceptions of their ability and confidence in problem solving, all subjects were given the Problem Solving Inventory (cf. Petersen, 1979). In addition to a total score the inventory yields subscale scores labeled: problem solving confidence, approach-avoidance style, and personal control. Utilizing a problem analog subjects were also assessed on their ability to: identify key information, seek out needed information, generate possible solutions, and identify potential consequences of implementing given alternatives. Due to schedule difficulties and absence during administration, 14 subjects completed the problem analog. In an effort to simulate a separate sample, pretest posttest design with limited subjects, one workshop group randomly received the Problem Solving Inventory and the other the problem analog during pretesting. The situation was reversed at posttesting such that each group was given the instrument that they had not received during pretesting.

RESULTS

A series of one-tailed independent t-tests were used to compare the group who had taken the instrument prior to the workshop with the group who was posttested. On the Problem Solving Inventory, the post group scored significantly higher on the total inventory ($t_{16} = 1.86$, $p < 0.05$) and on approach-avoidance style subscale ($t_{16} = 2.18$, $p < 0.05$). There were no significant differences between pre and pst scores on the confidence ($t_{16} = 1.35$, $p < 0.05$) or personal control subscales ($t_{16} = 0.70$, $p < 0.05$).

On the problem analog the post group considered significantly more items of information ($t_{12} = 2.87$, $p < 0.05$), but there were no differences in the amount of information sought ($t_{12} = 0.37$, $p < 0.05$) or the number of solutions generated ($t_{12} = 0.22$, $p < 0.05$). In terms of the potential alternatives generated for the analog, the post group identified significantly less negative consequences ($t_{12} = 2.57$, $p < 0.05$) and nonsignificantly more positive consequences ($t_{12} = 1.77$, $p < 0.05$).

CONCLUSIONS AND IMPLICATIONS

It is difficult to fulfill Goldberg's (1980) plea for empirical research on counseling for two reasons: 1)it is difficult to employ controlled experimental designs with large numbers of subjects with counseling methodology which is largely designed for individuals or small groups, and 2)there are few techniques and instruments which have been developed to reliably assess counseling outcomes. Despite suffering from elements of both these limitations the present investigation offers encouraging results. The Problem Solving Inventory data indicated that the workshop was effective in changing people's attitudes about their problem solving ability, particularly in terms of perceptions about becoming more systematic in approaching problems. Self-report data also confirmed participants' increased confidence in approaching problem situations. The findings from the problem analog suggest that at least in a simulation setting, the workship participants considered more information and were better able to evaluate consequences during decision making. The lack of significant findings on the other dimensions as well as the significant dimensions need to be substantiated by both replication and larger samples where possible. Future research must also include substantially more effort in the area of developing reliable and valid outcome measures.

In terms of the first objective of this project, problem solving training seems to be a viable and attractive approach to designing adult counseling based on life span development and andragogical principles. The focus on generic skills enables generalization across both problem situation and life stage "crises." The proactive learning orientation employed in this study is not only consistent with, but conducive of self-directed learning.

The problem solving orientation employed in this study also seems to have promise to fulfill some of the demand for new forms of counseling services to meet adult needs. For example, the group format is consistent with Grenfeld's (1969) contention that dynamic interaction is of direct benefit to both solving problems and increasing self-awareness. The problem solving model is, however, not necessarily limited to group application. The authors' current investigation is focused on experimental examination of the problem solving model applied in an individual context. Preliminary data suggests that such an intervention is equally if not more effective in teaching the individual generic skills.

Another important aspect of the proposed problem solving model is that it is relatively short-term. Short-term counseling is a particular need of adults who tend to have irregular episodic contacts. Short-term counseling is also a necessity for counselors who are faced with a burgeoning case load (Goldberg, 1980). The present solving model is attractive in that after an initial orientation and training in the process, client counselor contact can be on-the-spot, short, unstructured consulting sessions. Such a vehicle of impromptu intervention seems essential in meeting the needs of many adults with a full range of other commitments, particularly those with part-time status.

Finally, the problem solving model utilized in this study is especially attractive in that it does not require the lengthy professional training of other techniques such as psychotherapy. A number of counselors (cf. Goldberg, 1980) have advocated the use of paraprofessionals in the delivery of counseling services. The problem solving model is ideally suited for paraprofessional delivery and there is some empirical evidence (Petersen, 1979) that such an application is effective. However, the most salient and attractive feature of the problem solving model is that it could be utilized by adult educators to assist adult learners with counseling needs and to facilitate the learning transaction in general.

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AN EMPIRICAL INVESTIGATION OF ADULT READING: A CASE FOR THE STUDY OF INDIVIDUAL DIFFERENCES

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INTRODUCTION

Even with the proliferation of diverse learning resources (e.g. T.V., film, computers) learning materials in print form remain a principal **learning medium. Emphasis on self-directed learning and distance education have even increased the reliance on reading materials as a major learning resource. While there has been a considerable amount of research conducted with college undergraduates, relatively little is known about how mature students learn from written materials and which variables affect such learning. Furthermore, within the prose learning and reading literature there has been little recognition of the heterogenity of the adult population and subsequently, little investigation of individual differences in adult learning from print materials. Therefore, the purpose of this research was to examine a neglected dimension of prose learning research - the potential influence of adult learner characteristics and attributes on reading comprehension.**

Prose processing research and research on reading in general, have been preoccupied with investigating manipulations and variations of reading materials. The result has been the utilization of analysis of variance (ANOVA) methodology to test multiple comparisons of experimental manipulations of textual materials. Such a research paradigm ignores and in fact precludes examination of individual differences. Therefore, for the purpose of this investigation ANOVA methodology was abandoned in favor of multiple regression in an effort to empirically test a variety of learner attributes and aptitudes which potentially have a significant influence on prose learning. The specific objectives of this research were 1) to determine which learner characteristics would emerge as significant predictors of prose learning and 2) to determine if the particular attributes emerging as significant predictors would vary across learning situations and population samples of adult readers.

CONCEPTUAL FRAMEWORK

Early experimental investigations (cf. Ausubel, 1960, Rothkopf, 1966) of adjunct aids have spawned an almost countless number of prose processing experiments. Yet, despite all of the research activity, relatively little is known about learner characteristics which interact with material variables. Although some researchers (e.g. Ausubel and Fitzgerald, 1961, 1962) provided early evidence that certain adjunct aids differentially benefit students with varying backgrounds and abilities, reviews of prose processing research (cf. Duchastel and Merrill, 1973; Faw and Waller, 1976, Reder, 1980) reveal a general paucity of prose processing research concerning aptitude treatment interactions, particularly with adult populations.

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To the medical researcher reviewing the typical research paradigm of pitting one or more experimental manipulations of the textual materials against control conditions, it must appear as if prose learning researchers are searching for an "aspirin" which would be universally effective across conditions. Reviews of prose learning research employing multiple comparison methodology (Barnes and Clawson, 1975; Faw and Waller, 1976; Ludas, 1973) suggest, however, that treatment effects tend not to be universal - - experimental effects for organizers, questions, objectives, etc. tend to be situational and irregular, particularly when adequate control conditions are not employed. This inconsistency of results suggests the need for multivariate methodology which would enable analyses of learner characteristics which may function as moderator variables. An initial approach that might logically be employed to identify significant moderator variables in prose learning would be step-wise multiple regression.

Recent studies (Glover, Zimmer and Bruning, 1979; Zimmer, Glover, Ronning and Petersen, 1979) have demonstrated that a standardized measure of reading ability such as the Nelson-Denney Comprehension subtest can be utilized as a significant predictor of cued-recall and a significant categorical variable in free-recall of prose learning. Other researchers (cf. Witkin, Moore, Goodenough and Cox, 1977) have conducted studies which indicate that field dependent and field independent people respond differentially to the presence or absence of structure in reading materials. This research was specifically designed to empirically test these learner characteristics as well as other learner attributes (e.g. age, previous education, amount of time spent reading) in an effort to determine significant predictors of prose learning under various conditions for different groups of adult readers.

METHOD

Experiment I

Twenty-nine male and 33 female students enrolled in adult education classes at an English speaking community college in Quebec volunteered to participate in the study. Ages ranged from 18 to 50 years ($\bar{X}$ = 29.3).

After being informed of the nature of the experiment, subjects completed a background questionnaire which included questions regarding age, previous education, and amount of time reading. Subjects were then given the vocabulary, comprehension, and reading rate subtests of the Nelson-Denney Reading Test (Nelson and Denney, 1973). After the Nelson-Denney subtests, the experimenters administered the Hidden Figures Test, a measure of cognitive style similar to the Group Embedded Figures Test (Oltman, Raskin, and Witkin, 1971). Subjects were then given a break of 10 minutes.

Following the break, the subjects read two 1100 word prose passages (random presentation order). One passage (Reader's Digest, 1965) concerned the effects of birth order on child rearing and development. The second was a passage on the history and ancestry of the dog (Sautter and Glover, 1978). Immediately following each passage, subjects completed a 25 question multiple-choice test covering material contained in the particular prose passage. Reading and test taking times were controlled and no inspection of the passage was permitted during testing.

Experiment II

Thirty-nine male and 27 female students enrolled in an undergraduate business course at Concordia University (Montreal) voluntarily participated in the second study. Ages ranged from 19 to 43 years ($\bar{X} = 32.2$).

The experimenters administered the same background questionnaire and Nelson-Denney Reading Test as in the first study. The Group Embedded Figures Test was substituted for the Hidden Figures Test in an effort to get a more normal distribution of scores in the second study. Subjects in this study also completed the Individual Differences Questionnaire (Pavio, 1971) which yields verbal and visual imaging scores.

All subjects read the birth order passage and took the multiple-choice test used in Study I. Several days later all subjects read an 1100 word passage concerning areas of the human brain and their control over speech. Subjects took a multiple-choice test covering the content of the brain passage immediately after reading it. Except for the change of one of the passages, reading and testing controls were identical to those of the first study.

RESULTS

The learner characteristics and attributes data were collected prior to the reading of the experimental passages and were employed as predictor variables in regression analyses for the raw test scores on passage content. Step-wise, multiple regression was utilized to determine the regression equation accounting for the greatest percentage of variance in the raw test scores. The findings are most readily summarized in tabular form by experimental passage condition. (Please note that * indicates that an individual predictor is significant at $p < 0.05$. The predictor variables are ordered from top to bottom with the individual predictor accounting for the greatest percentage of variance listed at the top.)

EXPERIMENT I Birth Order Passage

Predictor	Mult R	R^2	R
* Comprehension	0.525	0.276	0.526
* Vocabulary	0.582	0.338	0.435
* Reading Rate	0.595	0.354	0.146
* Reading Hours	0.602	0.362	-0.029
* Age	0.605	0.367	0.057
* Hidden Figures Test	0.608	0.369	0.166
* Years of Education	0.608	0.369	0.018

Dog History Passage

Predictor	Mult R	R^2	R
* Hidden Figures Test	0.285	0.081	0.285
* Years of Education	0.352	0.124	-0.230
* Comprehension	0.417	0.174	0.264
* Reading Hours	0.422	0.178	0.117
* Age	0.423	0.179	0.051
Reading Rate	0.425	0.180	0.180
Vocabulary	0.425	0.181	0.148

EXPERIMENT II Birth Order Passage

Predictor	Mult R	R^2	R
* Vocabulary	0.370	0.137	0.370
* Years of Education	0.402	0.161	0.090
* Verbal Imaging Score	0.410	0.168	0.066
* Comprehension	0.420	0.176	0.294
* Reading Hours	0.427	0.183	0.105
* Age	0.433	0.189	0.111
* Group Embedded Figures Test	0.437	0.191	0.073
* Reading Rate	0.439	0.193	0.273

Brain Passage

Predictor	Mult R	R^2	R
* Vocabulary	0.364	0.132	0.364
* Age	0.441	0.195	0.101
* Years of Education	0.457	0.209	0.029
* Visual Imaging Score	0.471	0.222	0.191
* Reading Hours	0.481	0.232	0.106
* Reading Rate	0.488	0.239	0.194
* Comprehension	0.497	0.247	0.292
* Verbal Imaging Score	0.501	0.251	0.022
* Embedded Figures Test	0.502	0.252	0.112

CONCLUSIONS AND IMPLICATIONS

Inspection of the tables reveals that measures of reading aptitude, cognitive style and learner characteristics can all function as significant predictors of prose learning measures. Collectively, the set of predictors account for 1/5 to greater than 1/3 of the variance in the reading comprehension scores. However, just as the results for material variables can vary across experiments, the data of the present studies suggest variations for specific predictors across passages, situations and groups.

There are at least two dimensions of the phenomenon labelled reading -- the material dimension which includes such variables as content, organization, processing aids, and the dimension of learner characteristics which encompasses the predictor variables employed in the present investigation. The present findings suggest that there need not be less attention devoted to the study of material variables, but more emphasis placed on the often neglected dimension of learner characteristics and attributes. Minimally, the variables used as predictors in this investigation, as well as other indices of individual differences, should be employed in other studies in an effort to empirically identify the conditions under which a specific variable functions as a significant predictor of reading comprehension. Optimally, the findings of these and other regression analyses will form the basis for designing multivariate, factorial paradigms to test the aptitude treatment interactions which will lead to both a better understanding of the complex relationship of dimensions within the reading environment and some practical guidelines for the effective design of written instructional materials.

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TEACHER EFFECTIVENESS: FUTURE DIRECTIONS FOR ADULT EDUCATION

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The search for a measurable and consistent relationship between learning and instruction has been long and, at times, frustratingly impoverished. Much of the emphasis has been on personal characteristics of the teacher. This approach had such logical appeal that it dominated the first half of this century (Morsh and Wilder, 1954). Yet, the results were disappointingly weak. There was no consistent relationship between personal characteristics of teachers (e.g. knowledge of subject matter, intelligence, years of education, age, experience) and student learning or supervisory ratings of instructors.

The lack of success was consistently attributed to weaknesses in the instruments and design used for data collection. Then in 1960, David Ryans completed a massive and extremely thorough study of teacher characteristics which showed that the weakness was not in instrumentation or research methodology, but rather was intrinsic to the research paradigm itself. The illusive "good teacher" was not to be found in terms of personal qualities.

In the 1960's and early 1970's a new wave of research dominated research-on-teacher-effectiveness paradigms. Researchers (e.g. Flanders, 1961), decided that one should document what was happening in the classroom through direct observation. They, and others, devised ingenious methods for coding and recording teachers' discourse and student comments. Many studies examined teachers' directness or teachers' questioning behavior--for example the number and type of questions asked. Throughout this effort, most attention was given to verbal behavior because it was apparently important to teaching and because it was relatively easy to measure.

The results of this research were also disappointing. When student ability and different context variables (e.g. subject matter, program requirements, classroom organization) were accounted for, the carefully coded and recorded teacher behaviors were not consistent in their effect on student learning (Travers, 1973).

At this same time, adult educators and university professors of adult education were seeking their own answers to the question of what makes an effective teacher. Their efforts were primarily directed toward "expert" opinion--those in the field of adult education or professors of adult education (e.g. Chamberlain, 1961; Jensen, 1970; Pearce, 1970).

The principal fault with this approach was in the criterion of effectiveness: there was no measure of learning, only the opinion of expert judges as to what should be the qualities of an effective adult instructor.

Then, in 1973 a particularly influential review was published by

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Rosenshine and Furst that synthesized the results of approximately fifty studies which, for the most part, were studies which correlated teacher behaviors (process variables) with student achievement gains (product variables). The synthesis produced eleven categories of teacher behaviors that were apparently related to student achievement. The categories were further broken down into a principal set of five behaviors judged to have strong research support, and a secondary set of six behaviors judged to have weaker, but consistent, support. Although many of the studies reviewed by Rosenshine and Furst are subject to criticism on methodological grounds, in total, they represent the most solid body of evidence for suggesting that teacher behavior is related to measures of student achievement.

The relevance of the process-product paradigm of research on teacher effectiveness had been reconfirmed. The push was toward replication of studies, cumulation of findings, and a growing concern for process-product correlations. Studies were increasingly concerned with direct instruction and student learning as the criterion for defining instructor effectiveness (e.g. Brophy & Evertson, 1976) and yet Adult Education persisted in seeking expert opinion as to what constituted effective instructor attributes or characteristics (e.g. Rossman and Bunning, 1978; Smith, 1978). In 1974, a second influential work suggested a need to break from the heavy dependence on the process-product paradigm and presented four sets of variables in considering teacher effectiveness: Presage variables, context variables, process variables, and product variables (Dunkin and Biddle, 1974). This work helped change the emphasis from an assessment of competencies and the frequency with which an instructor displayed those, to a more comprehensive examination of the complex set of factors that influence teacher effectiveness. It is this work which will form the principal structure for the remainder of this paper. Slight modifications to Dunkin and Biddle's categories are made to accommodate factors particular to adult instruction and learning.

Four categories of variables are presumed to influence learning:

ANTECEDENT VARIABLES (e.g. Formative experiences, developmental stages, motives for participation, expectations and needs of participants, knowledge level of instructor, training of instructor);

CONTEXT VARIABLES (e.g. program requirements or focus, institutional constraints/demands, instructional setting, time of day);

PROCESS VARIABLES (e.g. instructor behaviors, instructor decision-making skills, academic learning time, student-to-student interactions, and student-to-instructor interactions);

PRODUCT VARIABLES (e.g. learning gains or outcomes, intended and unintended, immediate and delayed);

The remainder of this paper will deal with each of the categories, elaborating on research within and between categories as they relate to teacher effectiveness.

ANTECEDENT VARIABLES

This category suggests a need to consider what brings people to an educational event (motivation), where they are in their intellectual development (e.g. concrete operations vs. formal operations), what they expect to learn as a result of a given educational program, and the influence of their adult social roles.

There are two major sets of considerations within this category: students and instructors.

Students

There is no doubt that individual differences in ability and motivation will contribute to differences in learning gains (Lanier, 1978). Therefore, it is essential when assessing teacher effectiveness to account for differences between students with accurate measures of their learning gains.

Instructors

With instructors, the picture is not quite so clear. The long history of searching for characteristics of teachers that differentiate good from bad was not productive. Yet, much of that search was conducted without due consideration for other variables within this model, and the possible interactive effects between sets of variables. When studies have neglected to account for this interactive effect, the results have been confusing and contradictory (e.g. Jones, 1967). Yet, this category has a compelling logic about it and seems to have potential for influencing instructor effectiveness. The key may lie in a more careful search for relevant variables and a more careful analysis of those variables in combination with other factors.

CONTEXT VARIABLES

We know that the context has an impact on instruction (Brophy & Evertson, 1976; Pratt, 1979), that it influences the generalizability of findings (Elmore & Passalacqua, 1977), and that it places limits on the behavior that can and will take place within a classroom or other learning environment (Brophy & Evertson, 1976).

Context can be defined in terms of institutional press (e.g. institutional constraints and/or demands), the physical environment (e.g. room size, temperature, furniture, lighting), the psychological environment (e.g. norms operating within the instructional group and between instructor and students), and the ecological environment (e.g. the interactions of the above factors and the effects on the behavior of people within the environment). Most current writing and research considers this ecological definition the most promising direction for future enquiry into teacher effectiveness (e.g. Doyle, 1979).

Adult education takes place in such diverse settings and under such varied conditions that this category is essential in considering what influences instructor effectiveness. This is particularly so when many of the contextual variables are beyond the control of the instructor, yet impact on the effectiveness of his or her instruction. For this reason, it is vital that research in adult education be conducted within many contexts but with a maintenance of fidelity of treatment--either holding context variables constant or allowing them to vary randomly.

PROCESS VARIABLES

This category has accumulated an enormous amount of data over the past twenty years. Currently, two themes predominate in the literature and have potential for adult education research: Time as an intervening variable, and teacher decision-making as THE critical teaching skill.

Academic Learning Time

Academic Learning Time considers the content which a student masters, the number of minutes the student is engaged in related tasks, and the teacher behavior and environmental conditions which promote academic engagement with a high rate of success. Academic Learning Time differs from "allocated time" (the time a teacher provides for instruction in a particular content area) and "engagement time" (the time a student is attending to instruction in that content area, e.g. Bloom, 1976) in that the student must not only be engaged in the content but must also be experiencing a high rate of success while engaged in the materials or activities (Berliner, 1979).

The most convincing evidence that Academic Learning Time is a potent variable to account for student achievement comes from the Beginning Teacher Evaluation Study (Berliner, 1979). The study was initiated in 1972 by the California Commission for Teacher Preparation and Licensing in order to identify classroom conditions and teaching activities that foster learning in elementary schools. It was conducted in grades two and five with reading and mathematics. The findings suggest that learning in reading and math is positively associated with the amount of time the teacher allocates to instruction in those areas, the proportion of time that reading or mathematics tasks provide successful experiences for the student.

Adult basic education, perhaps more than any other type of adult education, parallels many aspects of elementary education. First, many of the instructors in adult basic education are former elementary or secondary teachers (Wharton, 1979). Second, much of the content in adult basic education is comparable to elementary education - especially in terms of basic literacy and numeracy skills. Third, much of adult basic education is conducted on an individualized basis, with students working independently of each other, and with the instructor diagnosing student entry levels, prescribing appropriate materials, presenting additional content and guidance, monitoring student progress, and providing feedback to students regarding that progress. As such, it seems highly appropriate to test the causal utility of Academic Learning Time in adult basic education settings.

Teacher Decision-Making

One problem with the earlier teacher behavior research paradigm was that it only asked 'which' teacher behaviors were related to pupil outcomes. The underlying strategy was to identify teacher actions that distinguished superior from inferior teachers. The knowledge gained was to become the basis for improvements in teacher education. A major fallacy of this paradigm, however, was that it neglected the critical relationship between the teachers' mental processes and their external behavior. While teachers must perform skillful actions, how they decide when, where, with whom, to what degree, and under what conditions is at least as important as what they ultimately do.

This critical relationship between teachers' mental processes and effective teaching was noted in earlier conceptual and theoretical literature (Shavelson, 1973). More recently, the leading proponent of this has been Walter Doyle (1979). While there is no easy way to research this question it has such compelling logic it cannot be denied. Indeed, the tide of opinion seems to be moving more toward agreement with Shavelson's contention in 1973: Decision-making may be THE basic teaching skill, in any educational setting, with any particular audience.

PRODUCT VARIABLES

In most research on teacher effectiveness the selection of outcome variables is a function of the goals and values of the researcher and the relative ease with which the variables can be measured (Olejnik and Wildfong, 1977). When one looks at the literature of adult education, it would appear that adult education researchers have a high value for participant satisfaction and find this to be a relatively easy outcome to measure, usually with rating scales.

Of course, it is also likely that many adult education programs do not lend themselves to rigorous testing of participant learning. Indeed, it may be inappropriate to impose time-consuming measures on participants attending a leisure-time, short-term program. However, many adult education programs do lend themselves to more careful and systematic assessment of outcomes. Jones, for example, examined relationships between antecedent variables and four different product variables (manual gains, verbal gains, satisfaction and persistence in the program). Using data from forty-four vocational instructors and 519 adult students, he found that students' manual gain scores were positively correlated with their verbal gain scores. Further, and perhaps more important, students' manual gain scores were NEGATIVELY correlated with satisfaction and persistence. This suggests, at least in this instance, that satisfaction and persistence are not equally representative of learning. Further, teacher effectiveness may be defined quite differently, depending upon which outcome measure (product variable) is used as a criterion for effectiveness.

RECOMMENDATIONS

If adult education is to begin a serious program of research on instructor effectiveness it must acknowledge some of the work already done by researchers in pre-adult education. The work of such researchers as Dunkin & Biddle (1974), Berliner (1979), Brophy (1979), and Doyle (1979) have important implications for adult education in terms of research paradigms that do more than survey opinions.

Specifically, four recommendations follow from the work of these authors:

(1) Test the findings of Rosenshine & Furst (1973) to assess the importance of those instructor behavior categories within different adult education settings. The replication of good research designs from elementary, secondary or higher education would be a worthy beginning and a start towards accumulating more data across a variety of adult education settings.

(2) Analyze existing studies for the "effect size" of different variables on learning outcomes. Although there have been many correlational studies and a few experimental studies related to teacher effectiveness, there has been no thorough attempt to estimate the magnitude of effect (e.g. Glass, 1978). The outcome of this analysis might be a matrix of effect size for variables within and across categories of variables.

(3) Test the causal utility of Academic Learning Time (Berliner, 1979) to account for student achievement gains in experimentally manipulated adult basic education settings. As discussed earlier, Academic Learning Time may be a logical link between instruction and learning and an important intervening variable, particularly in adult basic education.

(4) Begin to test the assumptions of theorists and proponents of the ecological model of the classroom and decision-making as the most important instructor skill (e.g. Shavelson, 1973; Doyle, 1979).

What is most disturbing to this author is the lack of any concentrated effort or concern with teacher effectiveness in adult education. We seem to persist in descriptive searches for desired qualities, irrespective of the realization that there is little merit in such a search. The sheer complexity of adult learning situations demands a more coordinated and systematic investigation of teacher effectiveness if we are to understand the relationship between learning and teaching.

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BOUNDARY SPANNING ROLES OF CONTINUING EDUCATION PROGRAM PLANNERS

by
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INTRODUCTION

A major function of many adult education practitioners is the planning of educational programs. Consequently, a major emphasis in the curriculum of many adult education graduate programs is educational program planning and development. Despite the importance of program planning to practitioners and university faculty alike, comparatively little substantive research has been conducted on it. Some of the research that was conducted found large differences between program planning as described in literature and as practiced in the field. Several writers expressed a need for more research on program planners and the program planning process.

The general purpose of this study was to examine the program planning process of continuing education program planners within the context of their organizational roles. Specifically, the purpose was to determine whether different types of program planners had different approaches to program planning.

The approaches taken to program planning were characterized in four ways, utilizing a twelve-step planning process synthesized from research literature. Characterizing factors included: the importance, use, and sequence of program planning steps and the participation of persons from the college and the community in the planning process.

Program planners were characterized primarily by their orientation toward their organizational role. Role was defined as the complex perceptions of behaviors that should be performed by a person having the role (the role incumbent). Roles were determined according to the expectations of persons relevant and significant to the role incumbent as well as the role incumbent's own expectations. In the performance of roles, a person may be oriented toward satisfying one group or another and may be subject to one form of control or another. A particular type of role relevant to persons responsible for managing the output of an organization to its environment is the boundary role. Boundary roles function where the organization comes into contact with persons and elements beyond its boundary--in the social, economic, and physical environments.

The orientations of the program planners toward their organizational roles were described by two concepts: constituency (the group they considered most important in the performance of their roles) and function (the predominant type of planning expected of them). The constituency of program planners was classified as the employing institution, the community clientele, or mixed constituency. The predominant function of the program planners was classified as being the continuation of established programs, the generation of new programs, or a dual function. Nine research hypotheses and four research

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questions were used to determine the character of and relationships between organizational role orientation (constituency and function) and role performance (program planning).

METHODOLOGY

This study utilized a descriptive research design in the investigation of planning roles and functions of continuing education program planners. The study was classified as a survey study because of its use of questionnaires to obtain information on the characteristics of educational personnel and the nature of the educational process.

The population studied in this project was made up of continuing education program planners in public community colleges. That population was chosen because of the large extent to which it developed educational programs for the adult population and to which it participated in graduate programs of adult education. The colleges of three states (Florida, Georgia, and Tennessee) were chosen as representative of community college systems typically found in most other states. Community colleges in Florida operate under local control; community colleges in Georgia and Tennessee operate under state control. Sizes of institutions in these states ranged from very small rural colleges (the smallest had a total credit enrollment of 338) to very large, multi-campus colleges (the largest had a total credit enrollment of 38,005).

The procedure for collecting data began with calls to all community colleges in the three state area to identify the complete population of continuing education program planners. A telephone interview schedule was used to maintain consistency throughout the many telephone calls. A questionnaire, sent with a cover letter, was then used as the instrument for collecting relevant data. The questionnaire utilized Likert-type scales, multiple-choice, and open-ended items to measure the organizational role, professional background, typical program, and program planning variables. Additionally, a set of cards was included with each questionnaire to represent the separate steps in the planning process. Respondents sorted the cards into a typical sequence and indicated whether any other persons participated in each step. All materials were pretested and revised prior to their application in the study.

Both content and construct validity were found acceptable during the study. Content validity was enhanced by basing all instrument items on the results of prior research studies and by pretesting with persons knowledgeable about the concepts being measured. Construct validity was confirmed by factor and discriminant analysis techniques comparing responses to hypothesized traits. Considerable reliability was found in instrument items through the correlation of item-by-item scores and the summed scores of items measuring identical concepts.

The data utilized in this study was collected at several levels of measurement. Organizational role, importance of planning steps, and sequence of planning steps were measured on an ordinal level. Educational background variables, typical program variables, and all program planning variables except sequence used categorical descriptions on a nominal level of measurement. Since all data was measured or treated as nominal or ordinal level data, all statistical tests used in this study were nonparametric tests. These tests included Cramer's V, Kendal rank correlation coefficient (tau), and the one-sample chi-square test.

FINDINGS

The persons who returned the questionnaires represented 58% of the program planners and 71% of the institutional campuses surveyed. The respondents were especially well educated. Most (88%) had attained at least a Master's degree; many had majored at least once in adult or continuing education (25%) or in other areas of education (56%). Approximately one-half (56%) were relatively new to the practice of adult or continuing education, having only one to five years of experience. According to the data obtained, the demographic characteristics of the respondents were quite similar to those of the total population.

The study found that the respondents could be classified according to distinctive organizational role orientations, much like the boundary role positions described in organizational behavior literature. Additionally, respondents were found to characterize the importance, use, and sequence of the twelve program planning steps quite consistently. Finally, the process of program planning was found to involve a large number of persons representing both college staff and community citizens.

Organizational Role Orientation

Orientations toward organizational role were indicated by the expression of opinions by the respondents. It was found that 50 of the 64 respondents (78%) were oriented toward community clientele as their primary constituency in the performance of their role. The predominant program planning function for 40 of the 64 respondents (63%) was found to be the dual function of both continuing established programs and generating new programs. The number of respondents who held each of the six possible role orientations are presented in Table 1 below.

Table 1

ROLE ORIENTATIONS OF CONTINUING EDUCATION PROGRAM PLANNERS

Primary Constituency[a]	No. Respond.	%	Predominant Function[b]	No. Respond.	%
Employing institution	2	3	Continue extablished programs	8	12
Community clientele	50	78	Generate new programs	16	25
Mixed institution/ clientele constituency	12	19	Dual function	40	63
Total	64	100		64	100

[a] $\chi^2 = 60.13$
d.f. = 2
$p = .001$
significant ($\alpha = .05$)

[b] $\chi^2 = 26.00$
d.f. = 2
$p < .001$
significant ($\alpha = .05$)

Program Planning Process

Twelve program planning steps synthesized from literature were used as the basis for characterizing each program planner's approach to the program planning process. Asked first about the importance of each program planning step, respondents ranked the steps in terms of contribution to administrative planning and participant learning. The steps, "Identify participant needs" and "Formulate program objectives" were believed to contribute especially highly to the quality of programs being planned.

The use and sequence of the twelve planning steps and the types of persons who participated in the planning steps were characterized within the context of actual continuing education programs identified by the individual respondents as "typical" of the programs they normally plan. Each of the twelve suggested steps was found to be used frequently in planning typical programs. All but three steps were used at least three-fourths of the time by all types of program planners. The three steps used the least were "Form a planning group," "Analyze relevant systems," and "Establish an operational base for delivering services." The sequence in which the program planning steps were used was found to be consistent among all types of program planners. Planning generally began with "Originate program idea" and "Identify participant needs" (often in combination) and proceeded through the operation and evaluation of the program. The reported sequence of use is presented in Table 2.

The representation of persons from the college and the community in the planning process was found to vary from step to step. Clientele and community citizens were represented most frequently in the planning process, followed by program planners and then other college staff (other continuing education staff, faculty, and administrators). The frequency with which representatives from the college and community participated in each planning step is presented in Table 2 below.

DISCUSSION

The continuing education program planners who participated in this study should have been thoroughly differentiated in their views and behavior. They represented different types and sizes of institutions and communities, worked under different types of state college systems, were educated and employed under different circumstances, and planned different types of continuing education programs. However, their dominating characteristic was the consistency of their opinions and approaches to program planning.

Their many consistencies were found associated with strong, common orientations toward their professional role. Most respondents were committed to serving constituency outside their employing institution. This was supported by their opinions (50 of 64 respondents were client oriented) and their heavy involvement of community representatives in the planning process. Most respondents were also committed to serving institutional priorities (40 of 64 respondents had dual functions of continuing existing programs and generating new ones).

The consistent orientations and behaviors provided evidence that the community college continuing educators shared a particular type of professional role, that of the boundary spanning agent. Persons in such boundary roles interact with other persons both inside and outside their organization. They often perform characteristic functions and share characteristic qualities.

Table 2

FREQUENCIES OF REPRESENTATION BY COLLEGE AND COMMUNITY GROUPS IN THE PROGRAM PLANNING PROCESS

			Frequency of Representation		
Reported sequence of use	Program planning steps	Proportion of 64 respondents using step	Cont. Ed. program planners	Other college staff	Clients & community citizens
1	Originate program idea	.91	36	22	48
2	Identify participant needs	.92	43	33	59
3	Form a planning group	.61	37	46	42
4	Formulate program objectives	.98	40	36	50
5	Determine program content and methods	.98	44	43	55
6	Design program structure	.92	45	38	43
7	Analyze relevant systems	.59	34	21	18
8	Establish operational base for delivering services	.63	32	25	23
9	Acquire resources	.92	50	36	32
10	Promote program and recruit participants	.95	53	55	45
11	Initiate and operate program	.95	53	50	30
12	Evaluate program	.86	41	28	37

Subject to diverse (if not conflicting) role-defining expectations from both sides, they must be capable of working with and between both groups in a manner that satisfies both sides.

Two major implications were drawn from the apparent boundary role character of the respondents. First, findings on boundary roles from organizational behavior research may be applicable in explaining the nature of adult educator roles and planning processes. Accurate portrayals of the personal and professional qualities required to perform successfully in boundary-spanning situations can increase the effectiveness of preservice training programs for adult educators. Second, the findings appear to justify a broadening of the concept of boundary roles. Unlike the boundary role person in business who is said to have a single constituent (the employer), the continuing educator may have alternative constituencies--community clientele as well as the employing college.

Findings about the program planning process also provided valuable information for the professional preparation of continuing education staff. The rankings of the importance of various planning steps for administrative planning and participant learning identified where major efforts should be directed in teaching and research. The use and sequence of planning steps as well as the consistent involvement of clientele in planning provide considerable support to popular professional literature.

The concepts examined in this study should serve well as a means of describing the traditional adult educator role as a linkage between persons with educational needs and organizations with educational resources. Through further research with boundary role concepts, the roles and functions of different types of adult educators could be compared and understood better. An improved ability to characterize such roles would facilitate improvements in programs to prepare adult educators for professional practice.

LATINO PERSPECTIVES TOWARD LEARNING ENGLISH

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This paper is part of an on-going study of language and literacy among Latino immigrants. The purpose of my work is to gain insight into the ways in which language and literacy are embedded within the life experience of the individual, as well as the broader cultural and social contexts which give shape to that experience. Accepting the phenomenological premise that people act in accord with the meanings that things have for them, I am exploring how Latino immigrants view the learning of English and the relationship of their views to actions taken with respect to language learning. A particular form of language learning, participation in English as a Second Language (ESL) classes, provides the focus for this article. The reasons for the focus upon ESL are two-fold: 1) The emphasis our interviewees placed upon English classes as the means of learning; and 2) The dominant American bias that Latino immigrants don't want to learn English -- that they are too lazy and indifferent to take classes. I look at ESL participation within the broader context of the individual's concern for and approach to learning English. Whereas most studies of participation in adult education rely upon multivariate procedures to measure correlations among individual background and classroom environment variables as predictors of participation in a given class, which is viewed as a relatively isolated event in a person's life, in my work, I look at participation as an act which is integral to the person's life experience and can best be understood in the context of the meanings attributed to it by the individual.

Though we may agree that they are of fundamental importance, meanings are a bit murky to define. The works of Blumer, Marris and Becker have served to guide me in my research. Marris (3) makes the important point that meanings consist of two dimensions: the sense of attachment (or emotional tie), as well as one's understanding of a particular phenomenon. In his writing on Symbolic Interactionism, Blumer (2) stresses the importance of meanings and the processes of their formation as essential to understanding human actions. According to Blumer, meanings, which form the basis for human action, are formulated through processes of social interaction and individual ways of interpreting one's situation. Linking beliefs to actions, Becker (1) uses the concept of perspective, which he defines as the collective views, plans and actions shared by people in a common problematic situation. In applying these ideas, I was limited by not having a common social situation in which I could observe the formation of collective perspectives. Instead, I've had to depend upon individual recall and report of meanings attached to the importance of learning English, actions taken, the influence of others, and changes in perspective with time and experience. This limitation was offset by extensive interviews conducted over the period of a year during which people were encouraged to talk as openly as possible about beliefs, values, past experiences and current life situation, as well as future plans, hopes and worries. Within the broad context of their life experience, particularly since coming to the States, we asked about language issues, stressing them only if they are stressed by the individual.

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Our research approach combines ethnographic and life history interviewing. Our field site is the western section of Los Angeles County, primarily the Santa Monica-Venice area. Estimates are that approximately 25% of the population is Hispanic, though there are no data on how many of these are immigrants, or how many are only Spanish-speaking, particularly unknown is the extent of people living in the area who are here without documents. We've used virtually any means we could think of in order to contact immigrants who would be willing to be interviewed. Because of the precarious position in which many find themselves, particularly if they are here without documents, we have relied heavily upon "trust" contacts, either friends, family members, or trusted others (priests, nuns, teachers, co-workers, community workers). It is difficult to be exact about the numbers interviewed, for often friends or family members would also be present and we would begin to get their stories as well, and sometimes go on to interview them separately. And we are still interviewing. To date we have life history interviews with 35 Latino immigrants, some of whom we've spoken to for as little as two hours, and others for as many as 20 or even 30 hours; the norm is about 8 hours each. Our process is to first make the contact with the person, then to conduct an initial interview in which we seek to get an overview of their life story, as well as some facts that will help us to decide whether or not to continue interviewing. Along with the criteria we use for the selection of interview cases, a big factor in the decision to continue interviewing is whether the person wants to talk to us further, a function of their availability and how much they get out of the interview process.

Because we were interested in people who we thought were the most apt to have language and literacy problems, and to be the least likely to participate in ESL classes, we sought people out who had had few years of formal schooling, though we did not totally limit ourselves accordingly. In order to pursue possible variations in experience, we also interviewed more highly educated immigrants, as well as participants in ESL classes who had a range of educational backgrounds. Since we were interested in understanding the ways in which language and literacy affect perceived life options, we wanted people who were in the primary wage-earning years of their lives; hence we concentrated upon young and middle aged adults. Within these broad criteria, we sought people who would represent a variety of situations typical of different Latino immigrants residing in the area. Examples of the informal criteria used are consistency with dominant countries of origin, typicality of work situation, and representative patterns of family status, as well as variation in legal status and time in the States. We looked for people who were not fluent in the English language, and who could be classified as non or limited-English speaking; all but four of the interviews had to be conducted in Spanish. Our interview criteria were kept flexible so that we could check out the various themes that emerged. For example, as we found that most of the people we were interviewing had attended a few classes in English at one point or another, we also noted that they had resided here for several years, and became concerned that we were reaching only the more stable elements of the population. Hence, we sought contacts with people who we thought would be more transient and who we thought were less likely to have taken classes.

Views about learning English

All of the people whom we interviewed stressed the tremendous importance of learning English. It is seen as critical in order to defend oneself and to get ahead, or to progress in America. Some would like to be able to communicate in English with others. Of these, English for purposes of self defense is the most urgent concern. Again and again the point was made that knowing English is essential in order to defend oneself. People speak of it in the context of survival at work, on the streets, in contacts with the courts, police, schools, health and other public agencies, as well as financial institutions. The concern is to be able to adequately represent one's situation -- to understand and to be able to make one's self understood, particularly with authorities. The most frequently mentioned situations in which knowledge of English is perceived to be critical are work and health related. People stress the importance of being able to ask for work in English, being able to take phone messages, to talk to the supervisor and to understand directions. Because so many of the people we interviewed have had severe health problems, either for themselves or family members, being able to communicate to health personnel -- from receptionist to doctor -- is of great importance. Many feel anxious about being able to deal effectively on the streets; they fear getting lost or being accosted by unfriendly elements, including the police. Several of the women told us that they never go out of their apartments alone because they feel unable to defend themselves on the streets; they are especially fearful of getting lost and then being mugged. Other situations in which people want to be able to defend themselves involve dealings with landlords, public utilities and public officials. In financial matters, people want to know enough English in order to survive economically and to protect themselves against financial rip-off where possible. Most of these situations involve the spoken use of English on the spot. When dealing with institutions, bilingual help is often available, but the sentiment is that bilingual personnel are there to represent the interests of the agency rather than to watch out for the interests of the person. Hence, when possible, they elicit help from people they trust, family members, usually children or friends who speak some English, and who can accompany them in situations where English may be required.

There was unanimous agreement on the part of all to whom we spoke that English is essential to get ahead. Getting ahead means getting a better job. People stressed that if they knew more English they would look for a different kind of work and not feel confined to jobs where they know English is not required. In the words of Santiago, "If I knew English, I'd have a different job or I'd look for it. But unfortunately I don't ... always they ask, do you only speak Spanish? Why don't you know English so that you can talk with the boss? And that's one of the biggest points of view that exists around here. You have to know English in order to be able to find better work, otherwise, if you don't you have to be content with what they give you and not what you want." The desire to get a better job serves as an important initial motivation for taking classes, but in time a major change seems to take place with respect to the value placed upon English as a means of getting ahead. The connection between knowing English and getting a better job is seen as true in general, but not as applicable in their situations which are perceived as pretty hopeless to change. They maintain that much more than English is essential to get ahead and emphasize the importance of legal status, having a trade, and having the educational background necessary to compete effectively on the American labor market. Most of those whom we interviewed did not meet these conditions, particularly since the skills and education that they had acquired out of the U.S. are sharply devalued by employers and educational institutions in the States. All stress that they want their children and younger family members to study English so that they can get ahead, but, as for themselves, most feel the impossibility of fundamentally changing their situation even if they can manage to acquire enough English to function effectively in the language, for job screening requirements are seen as far in excess of performance needs.

The desire to communicate with others is of concern to those who want to be able to express themselves to English-speaking people with whom they have frequent or periodic contact. This desire is often expressed by parents, particularly mothers who want to be able to understand their children who are learning English in the schools and speaking it in the home. They also want to be able to speak with teachers and friends of their children. Others want to be able to communicate with English-speaking people at work and some would like to be able to express themselves in a variety of social situations. Younger men and women, especially those who are single, want to be able to interact with English-speaking people of the opposite sex -- a very strong desire if they see marriage to an American as their primary option for acquiring legal status. The desire to communicate did not receive anywhere near the same emphasis that self defense and getting ahead did. When we asked about this, we were told that most contacts are with Spanish-speaking people and that the desired associations are with those who are part of "la Raza" -- most said that they feel uncomfortable around Americans who they view with curiosity, but experience as alien and strange.

Pattern of Participation in English Classes

We asked people about the various ways that they went about learning English. In addition to informal methods such as listening, reading and interacting on their own, many also purchased records, tapes and home study courses. Most felt that these methods were useful as supplements but could not take the place of more systematic study, which led many to take advantage of ESL classes. We were most surprised to find that most of the people whom we interviewed had participated in an English class at one point or another. Of the 35 people interviewed, 7 were recruited through ESL classes, so their participation is a given. Of the reamining 28 people, 20 had participated in a class and 3 said they were about to begin one, knew where and when they wre going to go, but for one reason or another wound up not attending; a 4th person has high hopes of going in the near future. This leaves only 4 people who did not talk about plans to take a class, and of these only one says that she doesn't have the desire to learn -- she tells us that it "doesn't attract my attention," but is glad her children are learning it -- as for her, she's hoping to go back to Ecquador and feels that, at 48, she's too old to learn.

If the person comes with the view of spending some time in the States, and if they have to find work here, an early effort is made to learn the language. Typically, within a year or two of arrival, the person will make a try at attending a class. Often they are told about opportunities and encouraged to attend by the relatives with whom they are staying; sometimes theyare urged by employers. Some don't have the opportunity to go until later, when children are grown or they are unemployed they take the time to try to learn English in the hope that they will be able to find a better job. Those who go early in their stay here go with the hope that it will increase their job options, but their immediate goal is to be able to learn enough to defend themselves. They want a grasp of basic vocabulary so that they can make themselves understood; they may also hope to learn enough to use correct grammar and pronunciation, but their immediate need is for words and phrases that they can use when they have to encounter someone who only speaks English. Initial concerns are to be able to understand and speak, then to read and write.

Once they attend, the experience is remarkably similar -- they go to a few classes, sometimes for a couple of months, and then discontinue. They do not take another class for quite a while, and then usually drop that one too. Typically, the process of stopping is not defined until after it just sort of happens -- a class is missed and then another and another. When they stop they do not give up their goal of learning English, but continue to hope that they will in the future -- when conditions are right.

Reasons for Stopping

There are a number of conditions for participation which must continue to be met if the person is to continue to attend classes. These are: 1) they see themselves as staying in the States for a long time; 2) they believe that learning English is important and that it can make a difference in the quality of their lives; 3) they have some confidence that they can learn it; 4) they have someone to go with; and 5) they have the time and energy to take classes. These conditions are met in varying degrees and held in a precarious balance; all but the first is subject to easy reversal. Although situational barriers are most commonly mentioned as the reasons for dropping out, what seems to happen is that they lose confidence in the possibility of their learning enough for it to make much of a difference in their lives. This loss of confidence can be due to a questioning of their ability to learn, or of their ability to persist, or of the relevance of the class to what they need.

Situational factors directly affect the time and energy that is available for study. Lack of time is the most common explanation given, and extensive responsibilities for family, including the need to work overtime or at more than one job in order to earn enough for daily living requirements, create inordinate pressures. Women heads of households find the conditions particularly severe; as one put it: "I would like to be two...two people...to be able to study and work." Changes in health status and mobility frequently interrupt class attendance. Illness is common and severe, especially during the early years of one's stay here. Mobility can involve trips back home, moving from one section of the city to another, or a change in place or hours of work; it is very common and causes difficulty in meeting the requirements of a regularly scheduled class. Though they know that they can attend at any point over the duration of the course, they report feeling lost when they return after a few absences.

People often mentioned that their minds were too preoccupied with worries to give attention to learning the language. In the upheaval of immigration, they talk of how difficult life was or is, and speak of feeling desperate, sad, lonely and lost away from their homeland and often their loved ones. They feel the strain of living in the homes of others, usually in-laws or relatives, under crowded conditions, as well as the strain of finding work, housing, and establishing a life for themselves. Along with preoccupation of the mind, age is experienced as an important factor in making it more difficult to learn. Even in their early 30's people conceive of themselves as too old to learn or progress. Gladis echoes the thoughts of many: "Youth has more capacity to learn. But the mind of an old woman has more trouble with it. One thing or another, it's difficult to hold the reins of a house and family. And another thing to worry about work and whether there is going to be food and rent." Worry and age are seen as the reasons why memorizing vocabulary and understanding grammatical rules are so difficult.

As they take a class, they realize that a lot of effort must go into learning the language. Not only must they find time to attend, but they must also find time to study at home, and, most important, they need someone to practice with. People speak of feeling confused in the classes. Grammar, especially verbs, is difficult for those with little or no schooling in their home country. They say they learn something from the classes, but feel that their immediate needs -- to be able to understand and make themselves understood so that they can defend themselves -- are not met. Instead of the opportunity to learn how to speak basic words and phrases, they find themselves frustrated and confused by the grammatical rules. They feel even more confused by the practice of conducting the classes solely in English and say that they don't know what the teacher is talking about.

Having someone to go to classes with is a major condition for attendance. It provides the spark for them to do something that they want to do but feel uneasy about. It also provides someone to go back and forth with, particularly important for women who tend to be more timid, to not drive, and to not go out alone at night. They almost always go with someone and when that person stops going, they also do. Husbands and wives, brothers and sisters, friends, can provide important moral support but taking the class together does not satisfy the need for someone with whom to practice -- they say that they do not know enough English to be able to communicate or correct each other.

Transitions in Perspective

With the passage of time, the sense of urgency around learning the language begins to pass. While people continue to maintain that it is important to learn English, the apparently contradictory view develops that one can get by without it. The point was reiterated that in Los Angeles there are so many who speak at least some Spanish that it is not as necessary to learn English as it would be elsewhere. My sense is that there is a change in view with respect to the importance of learning the language that comes about as part of the adaptive processes of living in the States. Not knowing the language, people construct a Spanish-speaking world in which they operate -- work, shopping, friendships, neighborhoods -- virtually all day in and day out transactions are conducted in Spanish. They either learn the English they need in order to defend themselves or they learn how to get the help they need, or how to structure their lives so that they avoid such situations. For work, they learn a very job-specific vocabulary and accept the "fact" that they probably won't get a better job. If the work situation is one that provides on-going contact with English-speaking people, as well as the opportunity to speak, they are likely to learn a good deal of English informally; if they have an oral command of the language and a trade or educational background, they are apt to want to study English formally so that they can get ahead. All continue to hope to learn -- "God willing, I will take a class again soon."

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Samples of 306 providers and 384 consumers were needed (Krejcie and Morgan, 1970) to provide the necessary degree of accuracy (at the .05 confidence level). This sample size also satisfied Nunnally's (1967) ratio of sample size to number of variables for factor analysis. Individuals were contacted and interview appointments were scheduled.

THE INSTRUMENT

Questionnaire items were developed de novo or adapted from the N.O.R.C. instrument, the Allport-Vernon-Lindzey Study of Values instrument and the Hollingshead Index of Social Position (Kohn, 1977; Allport-Vernon-Lindzey, 1960; Hollingshead and Redlich, 1958). The instrument was pilot tested and corrected as indicated (minor changes in complexity of words, for example) criterion validity is claimed based on the validity of the original instruments. The original instruments were not suitable in their entirety because of the different goals and populations of the studies for which they were intended.

The items selected were those that exhibited high loadings on the factors reported by Kohn. Questions developed de novo to examine attitudes toward education were formulated to be as consistent in response category format, level of wording, etc. The conceptual analyses of previous researchers were used as the basis for new items. A constant sum rating process was used during the pilot study to verify that each question in each category was perceived as being approximately equal in importance to the respondents. The ratings indicated no significant perceived differences among the items in each category.

Instrument reliability assessment took two forms: parallel and test-retest. A series of questions was reworded to ask for the same information in different ways. The responses to these check items were compared to the responses to the original items and a reliability coefficient of .92 computed. Some 10% of the respondents in each strata were reinterviewed and the results compared to the results of the original interviews. A coefficient of stability of .88 was computed. These reliability assessments form the basis for the claim that the instrument is considered to be highly reliable.

SURVEY METHODOLOGY

The structured-indirect interview format was used. Closed-ended questions with a 5 point Likert Scale response format were used almost exclusively. Interviewers were selected and trained, then matched with the respondents, i.e., providers interviewed providers and consumers (who had the necessary literacy skills) interviewed consumers. This measure was considered to be necessary to reduce bias caused by interviewer-respondent interaction. There was no significant difference in the interview results when the test-retest results were examined for the recording errors of each of the two interviewer groups. The non-response rate was slightly higher for the consumer/interviewer group than the rate for the provider/interviewer group (survey results suggest ex post facto, that the consumer/interviewer may have less confidence in themselves and thus be less positive in their attempts to schedule interviews). A recheck of interviews disclosed no significant differences in the two groups of interviewers.

DATA ANALYSIS

The data collected from the interviews were coded and the coding verified by having five people independently code 50 randomly selected interview questionnaires and then comparing their coding with that done by the original coder. It was decided that the question format called for a high degree of agreement among independent coders so the 97+ percent agreement obtained seemed satisfactory. The coded interview data were subjected to orthogonal principal component factor analysis, rotated to simple structure using the vaximax procedure. The computer program utilized was from the Statistical Package for the Social Sciences. The original study (by Kohn) used the same procedure by a different computer program. As the statistical method is identical and only the computer software different, the results are comparable. The orthogonal rotation was selected in both studies because of the design requirement to produce uncorrelated factors.

The first rotation produced fifteen factors, three of which contained less than three items. Cattell's scree test (1966) suggested that a rotation of the first eleven factors would produce the clearest structure. A second orthogonal rotation produced an eleven factor structure consistent with that presented in Kohn's 1969 study. The .40 loading convention was used as the decision point for inclusion of each item in each factor.

The eleven factors included 65 of the 70 items. The items in all factors except for factors VI and X loaded significantly on only one factor. The item "It's all right to . . . it" loaded on Factor VI -- Criteria of Morality and Factor X -- Trustfulness.

Not all of the factors produced were pertinent to the purpose of this study, but it was decided that the inconvenience of dealing with the additional data was more than offset by the advantages of being able to establish validity by comparing results with the earlier study. Factor VI -- Criteria of Morality, and Factor IX -- Compulsiveness -- do not appear to be useful in a discussion of ABE providers and consumers, even though the two groups responded differently to the items in each factor. The factor number and titles for the two factors are included without discussion in the following section.*

Factor names were taken from the Kohn study and should be considered as being temporary. Further examination of the adult education participant and non-participant population may well suggest more descriptive factor labels.

FACTOR DESCRIPTIONS

Factor I: Authoritarianism/Conservatism. Kohn (1969:79) states that "...men of higher social class prosition will be more open minded in their views of the socially acceptable and in their tolerance of nonconformity, while men at lower class levels will [be more authoritarian and less tolerant]." Factor I -- Authoritarianism/Conservatism -- tends to support his argument. The factor describes the respondent's views of what is socially acceptable ranging from rigid conformity to authority and convention by those at the lower end of the social scale to more open-mindedness in those members of the higher social class. This factor includes six of the original (Kohn's National Study instrument) items and two items developed for the present study.

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*Complete tables of all items and their loadings for each factor are available from the author.

Factor II: Anxiety. While the ABE consumers did appear to be more anxious as indicated by their responses to the items loading high on Factor II -- Anxiety -- than did the ABE providers, an examination of the factor scores indicated only minor differences in the anxiety of the two groups. Anxiety is defined as the intensity of consciously felt psychic discomfort. The factor included four original items and two new ones.

Factor III: Self Confidence. This factor indicates that the ABE consumers are less confident in their ability to perform or face change than the ABE providers. Three of the five items loading on Factor III were from the original instrument, the other two were new. Self-confidence is defined as the positive component of self-esteem or the degree to which one is confident of his or her own capacities.

Factor IV: Idea Conformity. This factor includes those items that indicate independence or conformity of thought. ABE consumers perceive their thoughts to reflect those of the social entities to which they belong. The ABE providers tended to perceive themselves as more independent in thought. Three of the eight items were from the original survey.

Factor VI: Criteria of Morality. This factor represents a continuum of moral position from opportunistic to highly responsible. Item 20 also loaded significantly on Factor X. The factor appears to have little relevance to a discussion of adult education.

Factor VII: Self-Deprecation. The self-critical part of self esteem is described in the Self-Deprecation factor. ABE providers were less critical of themselves than were the ABE consumers. Factor VII fits nicely with Factor III -- Self Confidence -- in that the less confident consumers were more critical of themselves than the more confident, less self deprecating providers. Factor VII includes six of the original survey items and two new items.

Factor VIII: Generalized Disenchantment. This factor is a measure of alienation. The ABE consumers were more disenchanted than the ABE providers whose responses indicated a higher level of general contentment. The factor includes three items from the original instrument and two developed for the present study.

Factor X: Trustfulness. This is a measure of the respondents' beliefs that other persons can be trusted. The ABE consumers were more distrustful than the providers. The factor included four of the original survey items and three of the new items and corresponded closely with the Kohn results.

Factor XI: Stance Toward Change. The receptiveness or resistance to change and innovation is the essence of this factor. It includes three items from the original survey, all of which loaded on this factor in the Kohn study and six items developed for the present study. The ABE consumers' responses indicated a relatively high resistance to change while the providers were receptive to change and innovation.

In summary, it may be said that the results of the present study validate the original study. Those in the lower social class, the ABE consumers, exhibit markedly different values than those in the higher (middle) class, the ABE providers. Further examination of the data provides interesting and useful information about the implications for adult education. For example, program planning based on the generalization of one's own beliefs to the universe may be doomed to failure if the universe includes those from other social strata who perceive the prescribed program as being antithetical to their value systems. The communication barriers between social strata may be as formidable as those between generations or cultures. Indeed, Mead (1970) and Hall (1976) allude to the problems of social strata communications in their works on generations and cultures. Coleman and Rainwater (1978) discuss in great detail the differences in attitudes of perceptions and values associationed with one's social perspectives of the American society.

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STRUCTURED, INDIRECT INTERVIEW TECHNIQUES AND PROMPTING BIAS IN ADULT PARTICIPATION STUDIES

The literature on adult participation in learning activities suggests that most adults are involved in some active learning or education process for most of their lives. The published research generally suggests that most adults should be classified as active learners. Cooligan (1974) reported that virtually all adults fall into the cagegory, Penland (1979) agrees that 75% of the adult population are active learners. However, the percentage of adults that qualify as active learners, is contingent upon one's definition of active learning. If the definition is broad enough to include formal, informal, incidental, and experiential learning, the researcher should not be surprised to find "a large percentage of active learners". That is, when learning is nearly coterminous with consciousness, few adults could fail to qualify as an active learner. A second body of literature examines the reasons for participation in the learning activities of those adults who are actively involved at the time their motives are examined. When these two conceptual frameworks are combined, one arrives at the erroneous assumption that an examination of the participation motives of active adult learners will describe the attitudes about learning/education of nearly all the adult population.

An examination of the research reports raise at least two major questions about the generalizability of the data: (1) Does the sample in the survey reflect the population or is it drown in such a way as to sytematically exclude a segment of the total population, i.e., are non-participants likely to be included in the sample? and (2) Were data collection methods free of systematic bias, i.e., was the desired direction of responses communicated to the respondent?

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The purpose of this study was to ascertain any differences between active adult learners and non-learners, to compare the proportion of each group in the population and to suggest possible explanations for any discrepancies between the findings of this study and previously published research reports.

An analysis of the research techniques used among those who have written on adult learning activities suggests that little attention has been paid to the dangers of leading the adult into the fields in which an interviewer plans to reap a harvest. There is a body of literature that deals with prompting bias in interview techniques. Bishop, et al, (1980) recently discussed psuedo-opinions on public affairs and found that many people tend to have opinions on non-existent activities and situations in public affairs. Their research indicates that little is known about this potentially major source of non-sampling error, neither the direction nor the magnitude of the error can be predicted. This study attempts to examine the effects of prompting on survey results dealing with participation in adult learning and/or education processes.

This study used structured, indirect interview techniques to survey a cross-section of a population of a large midwestern city about their learning activities, and to ascertain how prompting bias may influence their responses. 232 subjects were selected on the basis of multi-staged judgement samples using random numbers. After the completion of the interview process, the demographics of the sample were compared to those of the population of the United States, based on the Chi square of .5952 with two degrees of freedom, it was concluded that the sample was a realistic indication of the population values. The first part of each interview involved an indirect questioning technique to avoid prompting bias. The subjects were asked to describe their self-directed activities, other directed activities, and self-directed/other influenced activities, how often they participated in those activities, how and when they began to do those activities. At the end of the interview, subjects were asked a series of closed ended questions using the prompting words (i.e., education, learning, etc.).

For example, a subject was asked to list those things that they like to do most when they were perfectly free to do anything that they wanted to in order of frequency of action. Then starting with the most frequently enjoyed items, were asked how they participated in those activities, how long they had been doing those activities, and how they had found out how to do those things. The same techniques were used, asking the subjects about their other directed activities, i.e. activities that they did upon request or requirement of someone other than themselves, and their self-directed/other influenced activities, i.e., those activities that they did voluntarily but felt obligated to do because of family, church, social, etc. pressures.

The data from the structured indirect interview techniques were analyzed to ascertain the number of people who would be considered to be an active learner. It was decided that anyone who could not remember actively seeking an experience within the past five years, or who had taken up no new activity in the past five years which required a systematic learning process (or a decision to learn) would be classified as non-active learners. Active learners were those who could remember or who had described some activity that they had begun over the past five years and who had actively set about learning how to perform those activities. When the data were subjected to discriminant analysis, it was found that there were two groups in the population - active learners and non-learners - and those groups could be described by a set of demographic variables. The variables of income, education, age, and occupational status were the discriminating variables between the two groups. The higher the income, education and occupational status and/or the lower the age, the more likely the individual was to fall into the active learner category. Conversely, the lower the income, education and occupational status, and the higher the age, the more likely the adult was to be in the non-learning category. It was found that 52% of the population described learning activities without prompting. When the data concerning prompting was added to the information from the indirect techniques, it was found that an additional 26% of the people were either prompted into admitting that adult education/learning activities or were able to recall that they had been involved in either activity. Most of the 26% (18.3%) could not recall specific learning activities but just that they had been involved during the test period. This additional 26% brings the active learner percentage in the population into the range suggested by other studies in the field of adult learning education. Some of the additional 26% was undoubtedly due to recall, that is, 7.7% of those first classified as non-learners could recall not only that they had participated, but could describe specifically what that participation was. The other 18.3% claimed participation but could not recall a specific incident. A conclusion to be drawn from these data and supported by Bishop, et al, is that there is a natural inclination to give a socially acceptable answer about those things that one feels should be a part of adult life or their natural inclination to attempt to please the interviewer once the interviewer's purpose has been ascertained. The susceptibility to prompting was not associated with any discriminating variables but was relatively uniformly distributed among the demographic characteristics of the non-learners.

The implications for the findings concerning non-response bias are important in that planning is often based on estimates of the number of highly active learners in the total population, whereas the active learner population may be considerably lower, i.e., in the range of 50% of the population than has been suggested in earlier studies. Some of the active learners may have ascertained the purpose of the interview from the identity of the interviewers early in the study and may have tried to suggest activities that allow them identity with the interviewer or to please the interviewer (interviewers were required under the conditions of the Indiana University Human Subjects Committee and the local chamber of commerce to identify themselves as representatives of a study being conducted by the university, which possibly interjected a degree of prompting bias in even the indirect component of the process). In this case, the number of active learners would be less than the above data indicate, the number of non-learners higher and the prompting bias even more pronounced.

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A STUDY OF LEARNING STRATEGIES
USED BY COGNITIVELY FIELD-DEPENDENT
ACADEMICALLY SUCCESSFUL MATURE LEARNERS

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INTRODUCTION

The subject of cognitive style recently has become quite visible in the literature pertaining to adult learning (Even, 1978). One of the several areas of study among proposed conceptual categories of cognitive style receiving a great deal of attention is field-dependence/independence. Primary research in field-dependence/independence was conducted by Herman A. Witkin and his associates more than thirty years ago (Witkin, 1954). More recent work by Witkin has produced the Group Embedded Figures Test (GEFT) for identifying the degree to which persons possess these distinctive styles of processing information. Results of Witkin's studies using the GEFT and subsequent findings of other researchers have begun to produce interesting profiles of dependent and independent learners which have implications for the applied field of adult education. Because of the traditional highly analytic and convergent nature of most formal education, important questions may be raised about compatability of learners with varying styles of learning to primary modes of delivery found in traditional schooling. More specifically, as characteristics of cognitively field-dependent adult learners become more clear, effectiveness of common methods of providing and facilitating education for these adults may be found to be limited.

Certain learning style characteristics emerge from the literature which suggest a profile of the field-dependent individual. According to Witkin and associates, field-independence versus field-dependence refers to a consistent mode of approaching the environment in analytical, as opposed to global, terms. It denotes a tendency to articulate figures as discrete from their backgrounds and a facility in differentiating objects from embedding contexts, as opposed to a countertendency to experience events globally in an undifferentiated fashion. The field-independent role includes competence in analytical functioning combined with an impersonal orientation, while the field-dependent role reflects correspondingly less competence in analytical functioning combined with greater social skills (Witkin, 1954; Witkin and Dyk, 1962; Witkin and Moore, 1974).

Cross (1974) pointed out that due to the stability of cognitive styles, it has been suggested that there is a close relationship to personality structure. The initial and subsequent research by Witkin on field-dependence/field-independence treats the styles as personality dimensions, not types, while recognizing individual differences differing in the degree to which they are located toward the independence or dependence poles. The position attained by a person along the continuum is 'idealized' as restricted to a narrow band and stable. She also observed that cognitive styles are largely determined through socialization and that women in western cultures are acculturated to be more field-dependent than men.

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Samuel Messick (1976) indicated field-dependence focuses on the relationship of items and their background. This dimension, identified by Witkin and his associates, is the most thoroughly researched. The numerous studies have shown, among other findings, that there are positive relationships between field-independence and verbal, mathematical and spatial abilities. Evidence of field-dependence indicates that individuals with this style are more sensitive to their social environment and more adept at interpersonal communications.

Witkin reported there is good evidence that the style obtained by an individual on the Embedded Figures Test extends into psychological dimensions beyond cognition. As the nature of interaction which people have is explored, field-dependent persons essentially are found to be guided by figures or groups in positions of authority. Field-dependents are selectively attentive to human content of the environment.

A critical problem is the analytic and convergent nature of standardized achievement tests and learning approaches administered to field-dependent individuals. Some research points out the apparent bias against field-dependent learners which nationally administered standardized achievement tests such as the General Educational Development Test (GED) possess (Donnarumma, 1980; Loveall, 1979).

Field-dependence/independence seems not to be correlated in any meaningful way with general intelligence in the sense that tests of cognitive style measure the same things as IQ tests. Field-independence, however, has been shown consistently and positively correlated with one aspect of intelligence: analytical intelligence, which requires the separation of elements from background. It is not significantly related to intelligence factors of verbal comprehension and attention concentration (Witkin and Dyk, 1962).

Correlations of cognitive styles with school achievement, however, present a mixed picture. For example, research on college grade point averages of extremely field-dependent and field-independent students showed no differences. Cross (1977) recommends taking a speculative look at how educational approach might affect students of different cognitive styles. In considering research design, Messick suggests studies of this nature might best be conducted looking at the strategies of successful learners who are extremely field-dependent or independent. It was with these suggestions in mind this study was proposed. It specifically addressed the research question, what strategies do academically successful field-dependent adult learners use in coping during peak learning experiences?

METHODOLOGY

The research design was descriptive, using the structured interview as the method of gathering data. Two types of academic programs were identified from which subjects were selected for the study - a General Education Development preparatory program in a large metropolitan community college and a graduate program in adult education, both in northern Illinois. It was determined that at least 15 subjects from each program would be selected who qualified by virtue of scoring in the lower quartile of the Group Embedded Figures Test, which indicates a dependent style, and having been recommended to successfully complete the GED exam by their teacher or having been admitted to graduate studies in adult education. Sixteen subjects from the community college program qualified and were interviewed by a researcher skilled in administering the GEFT and trained in use of the interview instrument. Fifteen graduate students were screened from two graduate classes in adult education. All GED subjects were interviewed after the formal class in which they were participating had concluded.

The Adult Learning Interview Schedule (ALIS) was developed for gathering data. The instrument was developed through critiques and suggestions for revision proposed by graduate students studying adult learning and development with whom the purpose for the study was discussed. Sixteen items appeared in the final version of the protocal.

1. What has been your most significant learning experience? Please describe it.
2. Why was it particularly important to you?
3. Where were you at the time? (if not already disclosed).
4. How old were you?
5. How many persons were involved who were also learning? How were they involved?
6. How did they help or hinder your learning? (if appropriate)
7. Were there other persons (teachers, leaders, parents, etc.) involved who helped you learn at the time?
8. Of what help or hindrance were they to you?
9. What other resources (materials, people, things) did you use while having this important learning experience?
10. Which resources did you find most helpful in the learning process?
11. How would you say you approached and followed through with the learning experience?
12. What steps (if any) did you take in the learning? If there were steps to your learning, was there a sequence to the steps?
13. How did you find yourself dealing with completing the learning differently from others or from what you expected to do in accomplishing the learning?
14. Over what period of time did the total learning episode occur?
15. Did the length of time make any difference as the importance of the learning?
16. In looking back, how would you judge the importance of this significant learning experience (a) to your personal goals, (b) the influence it has had in your total life experience, (c) the desire for learning you have right now?

To achieve an openness of response and to center on successful learning episodes, each subject was asked to focus on a single significant learning experience any time in their lives as they responded to questions Interviews were typically conducted face-to-face. The telephone interview was used in the event that appointments could not be arranged with GED subjects. Interviews were audio-taped except in instances where the subject did not give permission. All graduate student subjects were interviewed in person and taped.

Among the 31 subjects selected for study, 17 were female and 14 were male. The racial composition was 9 black, 20 white, 1 Hispanic and 1 American Indian. The average GEFT score for graduate students was 4.86 and for GED students was 5.0 (4.94 overall average score). The average age of graduate students was 40.1 and 31.5 for GED students, with age ranges from 24 to 55 and 18 to 53, respectively.

Tapes and anecdotal notes were reviewed and charted by a researcher trained in analysis, but not involved in the interviewing portion of the study. Charted data was then analyzed to determine overall patterns of response. Responses to questions #11 and #12 pertaining to the subjects' perception of their learning approach were analyzed using eleven psychological learning processes predominately suggested in their responses -- (1) rote, (2) trial-and-error, (3) model, (4) inquiry, (5) systems, (6) symbolic, (7) creative, (8) reflective, (9) emotive, (10) value, and (11) self learning (Simpson, 1980).

FINDINGS

In reviewing responses from the 31 subjects it was found that self-identified significant learning experiences occurred at various ages and spanned from one day to over ten years in duration. The typical period of peak experience for graduate students was between 21 and 30 years of age while GED participants identified their experience to occur between 11 and 20 years. Eight of 16 GED students indicated it occurred between 11 and 20 years of age, 9 of 15 graduate students between 21 and 30 years of age. Seven graduate students indicated between ages 31 and 50 their most significant experience took place.

Regarding the location of the learning experience, about one-half the subjects associated some form of school with the learning (15 of 31) as opposed to the home (6) work (3) or other sites. Twenty of the 31 were in a group of learners when the experience occurred as opposed to learning alone. In describing the type of experience represented by the significant learning, most reflected it to be personal in nature. Eleven graduate students described it also as being formal. When asked to identify a principal facilitator, (if one were involved) a variety of roles were mentioned. Six GED students identified parents and six chose teachers, while seven graduate students isolated teachers as having the major facilitator role. Only one graduate student mentioned parents. When asked about the involvement of peer leaders in the experience, 17 of the total stated peers helped. Only one claimed peers hindered the learning.

In describing important resources other than the facilitator, 24 of the total indicated "people" exclusively as the major additional resource as opposed to books, materials, machines and other aids. Thirteen graduate students selected books and materials as important resources, but 10 of the 15 chose people of some sort (e.g. teacher, co-worker, coach, leader) as most helpful.

In analyzing the approach taken during the significant learning experience, no definite psychological pattern seemed to emerge, however 27 of the subjects reflected affective processes (emotive and value learning) in addition to involvement of self discovery as being important aspects to their approach during the experience.

When questioned about the discrete and sequential nature of their approach most indicated the approach was indefinite (1[illegible]) and non-sequential (20). No consistent pattern emerged when subjects were asked to recount important steps in the learning approach or how their approach was specifically different. It is important to point out, however, that 21 of the field-dependent subjects did interpret the approach they used to be unique as compared to other learners involved in similar learning activity. Other than difference in age when the significant learning took place, which might be expected, the GED and graduate subjects responded much alike. There also appeared to be no racial differences.

An interesting finding associated with length of the significant learning experience was that although length of time varied among subjects from less than one day to over ten years, 20 subjects reported that the length of time was indeed an important aspect in the experience.

DISCUSSION

In reviewing responses of the two groups of field-dependent learners, the data tends to support findings suggested in the literature concerning general characteristics of field-dependent individuals. Given the purpose of this study, that of attempting to identify possible relationships which emerge from general patterns of response, certain aspects of the learner's perceived approach may warrant hypotheses generation and further investigation. For example, since it appears that successful learning for the field-dependent learner tends to occur in more structured settings, and the most important resource for learning is human interaction with individuals assuming an authority role in those settings, the effective interaction of facilitator within a structured system (school) seems to warrant investigation. Studies of facilitators deemed effective by field-dependent learners as to their interaction within and use of the school setting may be productive.

Although the subjects pointed out peer-learners helped in the learning experience rather than hindered, 8 of 15 graduate students preferred non-group learning, and only one indicated learning in a group as preferable. The effectiveness of group interaction with the field-dependent adult learner also seems to be an area for more quantitative and qualitative study. This is particularly important given the adult education community's general commitment to group format and process. Research questions directed at just how a field-dependent learner effectively uses a learning group might generate worthwhile information.

One limiting aspect of the findings deserves to be surfaced. Since the subjects were asked to focus on a so-called "peak" learning experience, the degree to which this example represents all successful learning experiences of the individual is uncertain. This, of course, suggests studying "typical" successful experiences to determine differences in response patterns. The actual part emotion, values and self involvement plays in learning effectively, though more difficult to design, also deserves further research attention. Also, a study of extremely field-independent students which is being carried on by this researcher may produce useful comparative data.

A more indepth assessment of what field-dependent learners consider to be an indefinite, non-sequential process in their learning is suggested from a digest of data. It seems apparent the global perspective of subjects may be obscuring some identifiable patterns used by successful field-dependent learners if given to more indepth probing and analysis. The revelation of learning processes through carefully developed protocols may be of help to learners and facilitators alike in coping with the analytic, convergent world of academia.

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DISCREPANCY EVALUATION OF THE COGNITIVE AND AFFECTIVE OUTCOMES OF COMPUTER-ASSISTED INSTRUCTION

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PROBLEM STATEMENT

The object of the research design was to test hypotheses on the cognitive learning and affective outcomes of CAI supplementing lecture discussion. In addition, the CAI educational strategy was further assessed by utilizing the Provus Discrepancy Evaluation Model. The steps of this process allow for evaluation of the design, installation, process, product, and cost of the endeavor.

LITERATURE REVIEW

CAI has been defined as an electronic teaching machine that stores programed material and gives it to the subject step-by-step. It not only tells the subject when his answers are right or wrong, but when a learning difficulty arises, it will switch the student to another series of steps that will help him resolve the difficulty. It is individualized instruction provided by a sophisticated piece of electronic equipment.[1] CAI may be in the form of quizzes, tutorials, tests, games, or simulations.[2]

Subjects can try their skills without threat of failure, have control in the learning experience, and an opportunity for practice and flexible scheduling.[1,3,4,5]

The limitations of CAI have also been documented. One of the biggest disadvantages is the cost of development, maintenance, and up-keep. Not all computer systems are reliable, some terminals are noisy and distracting, and sometimes there are problems with transmitting CAI signals.[3] Currently, it may be hard to implement CAI because of a lack of skilled personnel.[6] Human problems result when subjects and/or faculty do not wish to change their behavior and style of teaching or learning. And, importantly for adult education with CAI, there can be a decreased opportunity for socialization among students. Thus evaluation of the design, installation, and costs must be made. In addition, the process and product of learning through CAI must be examined.

A completely sequenced learning task results in a more rapid acquisition of the material than does a partially or randomly sequenced task.[7] CAI is one method of sequencing material from the recall through synthesis level.

So the machine can be adjusted for man but can man adjust to the machine? The literature reports multiple and conflicting findings on this. One author reports that field-dependent people are aided most by CAI materials that structure information;[8] another source states that tutorial or drill modes are much more effective for low-ability subjects than for middle or high ability subjects.[9] In a study using the PLATO system, those subjects with the active experimentation learning style benefited most from CAI.[10] Also subjects with high test anxiety had a low opinion of CAI, thus these traits and learning styles must be assessed.

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Interestingly, achievement with CAI is not correlated with socioeconomic status, GPA, or typing ability. There is a small positive correlation between achievement with CAI and the trait of extroversion.[11] Although attitudes have been found to influence CAI use, attitudes toward the computer became more positive when the subjects felt the material was relevant to their present needs and when they made few errors while using the computer.[11] Even with positive attitudes toward CAI, subjects have some specific dislikes: slow computer response time, waiting to use a terminal,[12] slowness of typing as a form of imput, lack of creativity, and impersonality.[11] Subjects' attitudes have not been shown to relate to their achievement.[11]

Studies have been inconclusive as to whether CAI is more effective than other teaching methods.[4,11,12] In a study using the PLATO system, significant learning occurred and the variables that increased learning were perceiving the material purpose, using the information concurrently in another setting, and having used the computer before. Other studies have also shown improved performance on exams after using CAI.[13,14] Another study showed more rapid learning with CAI but less retention than with traditional methods of instruction.[9] The comparison of achievement between the traditional approach and futurist machine style of teaching must consider not only the nuts and bolts of the machine, but also the finely tuned nature of man: both the cognitive and affective outcomes of CAI.

METHODOLOGY

The experimental design called for two groups of subjects which were pre- and post-tested. This is a modification of Design Four found in Campbell and Stanley.[15] The dependent variables were cognitive learning and affective outcomes post CAI. The independent variables or treatments were lecture-discussion with CAI or lecture-discussion alone.

Subjects

The subjects were 31 adults enrolled in an advanced medical-surgical nursing course. The subjects were randomly assigned into groups. Group A (after group) used the CAI program following the post-test so that lecture-discussion was the only mode of treatment. Group B (before test) had both lecture-discussion and the CAI program prior to the post-test. Both groups took the post-test as a component of the first course unit examination.

Procedure

Both groups were simultaneously instructed on computer terminal use and gave informed consent for participation in the study. Subjects were instructed to complete the post CAI program evaluation form immediately following the use of the computer. The classroom instruction evaluation form was filled out immediately after the post-test. Neither of these tools required subjects to identify themselves. Computer program printouts were collected on a volunteer basis as names and time schedules identified individual subjects. Aggregate data from the print-outs will be used to tabulate the frequency of various components of the synthesis cognition process such as how often the subject requested additional information.

Instruments

Cognitive Measures

The pre- and post-test items were used to assess the learner's ability to analyze a problem and synthesize an appropriate plan of action. This process was broken down by using ten objective items representing interim cognition stages on Bloom's taxonomy. For example, the definition of the term hyponatremic (knowledge), associated laboratory measure (comprehension), and description of accompanying symptoms (application) were all assessed prior to the patient situation (analysis) and evaluative action (synthesis) questions. Each item was assigned a value of one point, and the score for this instrument ranged from zero to ten.

The validity of this instrument came from experts in the field who felt the content and Bloom taxonomy categorization was appropriate. The reliability of the instrument came from test-retest and item-analysis figures.

Demographic-Information Questionnaire

The purpose of these data was to determine if the extraneous variables of age, educational background, previous CAI use, and self-ratings had any effect on the dependent variable. The subjects rated themselves on a five-point Likert-type scale on enjoyment of programmed instruction, test anxiety, study time, and creativity. The literature indicates these three variables are associated with a subject's evaluation of CAI Experiences.

Methods of Instruction Evaluation Forms

These tools were used to tap the subject's feelings about the methods of instruction. All subjects completed both forms which assess instructional objectives, quality of content, sense of achievement, need for assistance, and time requirements.

Provus Discrepancy Evaluation

The Provus model basically requires a comparison between reality and a standard outlined in five stages.[17] The initial Design stage uses criteria related to proposed function. The next stage, Installation, utilizes operational criteria or use data. The third Process stage studies the relationship between the process (learning activity) and the intended product (high level cognition).

The Product stage compares intended to actual outcomes while the last stage, Cost, compares actual expenditure and budget. In our inflationary day and age, this additional information should provide sufficient data to compare cost and educational outcome.

Methods of Analysis

Gain scores and other repeat measure statistical analyses were used on the groups' pre- and post-test scores. Measures of central tendency were used to compare differences on affective, demographic, and evaluative results. Frequencies were reported on computer printout information.

RESULTS

The major findings of the study were: 1) there were no significant differences between groups on cognitive learning as measured by the objective tests; 2) within groups comparison showed that, irrespective of method, both groups learned significantly as measured by pre- to post-test gain; 3) the CAI supplemented group had significantly higher self ratings on confidence in the subject area; 4) no differences in studying time for the groups were found; 5) the most frequently chosen preferred method of learning was lecture-discussion supplemented with CAI; 6) both methods on the average were equally and highly rated; 7) the mode response indicated that the CAI supplemented method did not negatively affect social interaction.

Prior to initiating either method of instruction, both groups were tested with respect to their initial level of knowledge of the subject (nursing responsibilities with diuretic pharmacology). The tests performed indicated no significant differences in groups. The demographic data further emphasized both groups' similar backgrounds and equal cognitive level in this subject matter.

The first hypothesis was not supported by the test although the observed trend was in the predicted direction. Regarding hypotheses two and three, the tests fell short of the significance to support the hypothesis. For the affective hypothesis, post treatment confidence in the subject area was found to be significant at the $p = .05$ level in the CAI supplemented group.

Hypothesis four was supported in that fifty percent of both groups selected lecture-discussion with CAI supplement (the mode). The remainder of the subjects were split among CAI alone, lecture-discussion, and no response. The fifth hypothesis was not confirmed as the lecture-discussion with and without CAI supplement both averaged moderately high on the evaluation rating instruments. The sixth hypothesis was confirmed in that the category "almost never" had the most numerous responses.

LIMITATIONS OF THE STUDY

The smallness of the sample size, the restricted CAI use, the possibility of cross contamination of group attitudes and the fact that the sample was taken from only one educational institution limits generalizability of this study.

Another limitation of the study is the dependence on self-report data which was gathered prior to the subjects' application of the new knowledge.

DISCUSSION

The findings have several implications for educating adults. If the aims of continuing education are not only to increase knowledge but also to encourage study and enhance confidence, then it appears that CAI supplemented lecture and discussion should be considered.

The findings of the discrepancy evaluation indicated that the design and process of the CAI allowed learners to problem-solve before their actual experiences with patients. The aspects of immediate feedback, self-pacing and repeated trials were highly regarded by the subjects. In this study the cost analysis discrepancies were narrow due to the grant funding. Certainly the monetary base for these educational strategies must be developed prior to large scale implementation and, as the discrepancy evaluation revealed, the installation in a distracting learning environment was a detriment to the subjects.

The suggestions for further research are many beginning with the replication of this study with a larger sample size and expanded CAI supplements. Instruments with improved measures of cognitive and affective change should be sought. Results of these two suggestions would provide the basis to ultimately test the impact of CAI on the cognitive and affective outcome in a clinical situation.

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EDUCATIONAL FACTORS AFFECTING THE CONTINUED ESTABLISHMENT OF YOUNG FARMERS IN IOWA

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INTRODUCTION

Adult education is a phase of education that is receiving increasing attention among educational planners. Recent studies have revealed that there exists a large number of full- and part-time teachers, administrators, and supervisors of adult educational programs throughout the country. According to Hartsock and Copeland (1979) there were over 150 national groups and thousands of state and local groups that sponsored some form of educational program for adults in 1978. They estimated that well over 50 million adults had participated in these programs studying a variety of topics.

We would be myopic to believe that the educational needs of adult agricultural workers would be different from those of their peers in other occupational endeavors. A growing national population requires more food which must come from the land, a commodity that is becoming increasingly scarce as time progresses.

In recent years, educators Crawford (1969) and Stadlman (1973) have been calling for increased emphasis on adult educational programs and, in particular, for programs that will meet the educational needs of young and adult farmers. These educators point out that non-educational sources (magazines, television, etc.) of information used by farmers to solve their problems are inadequate in meeting the educational needs of young farmers. They suggest that what is needed to meet the needs of these agricultural workers is formal instruction that presents the latest knowledge in technical agriculture relevant to the problems farmers are confronting. In such a setting, proper interpretation and use of the information can be provided as it relates to specific problems farmers are attempting to solve.

Little information exists, in the form of research reports or other writings, that assesses the impact of existing programs in meeting the needs of young and/or adult farmers. The purpose of this study was to determine factors that influenced participation of adult farmers in educational programs and those factors that may have influenced changes in farming programs of those farmers who participated in these programs.

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RELATED RESEARCH

Research that investigated the educational needs of adult agricultural workers and their progress in attaining their occupational and personal goals were observed to be few in number in recent years. Those studies that have been completed covered a variety of topics related to adult and young farmers' educational needs and programs.

In the main, young and adult farmers had not participated in formal educational programs conducted by vocational agriculture teachers and county and area extension personnel, Crawford (1969) and Stadlman (1973). Educational programs sponsored by comercial companies appear to be the type of programs that attract the largest number of farmers. Farmers supplement this instruction with technical agriculture information provided through farm magazines, radio, and television.

Other researchers point out that the success of adult and young farmer classes is directly related to how well instruction provided in the program relates to real-life problems, interests, and needs of those participating in the program. In the main, instruction in successful programs dealt with topics important to the operation of the farm business, Bode (1967), Neylan and Verner (1966).

The need for adult and young farmers' educational programs was observed by Pearce (1964) when he pointed out that instruction on relevant agricultural topics was a real need of beginning farm operators who were becoming established in farming.

PROCEDURES

Research Design

The research design was descriptive and utilized stratified multistage random selection procedure.

Population and Sample

The sample in this study included 219 Iowa farmers who were studied by Crawford (1969) in 1968. The sample was drawn by utilizing the five economic areas of Iowa namely, the Western Livestock, Cash Grain, Northeast Dairy, Eastern Livestock, and Southern Pasture areas. Once these areas were identified, four randomly selected counties in each of these economic areas were used. Within each of these counties three randomly selected townships were utilized. All farmers who lived within these randomly selected townships were then interviewed, who were deemed eligible (see Instrumentation subhead explaining Form I).

Instrumentation

An instrument for collecting data for this study was developed using the 1968 instrument as a model. A schedule was divided into two major parts. Form I was used as a screening sheet, as it was in 1968, to determine the eligibility of those farmers contacted. Eligibility was determined by positive reaction to statements asked determing the respondents engagement in production agriculture, and having been a respondent of Crawford's original study in 1968.

Form II contained several sections to obtain data on the respondent's background, current farming status, involvement in educational activities, leadership involvement and personal views regarding farming. Of particular interest in this study were factors associated with the involvement of the respondents in educational activities.

Treatment

For more detailed information concerning sampling procedure or any characteristics concerning respondents, referral is made to the authors dissertation entitled, "Educational Factors Affecting The Continued Establishment of Young Farm Operators in Iowa", Smith (1980).

Conditions of Testing

Data about each farmer were collected through personal interview. Interviewers were trained at Iowa State University prior to conducting the interviews which were completed during the Spring of 1979.

Data Analysis

The information collected through the interviews were analyzed using means, one-way analysis of variance, and Scheffe's post hoc test, at an alpha level of .05.

FINDINGS

When the results of this investigation were compared with findings reported by Crawford (1969), observation was made that the participants had participated more extensively in various educational programs in 1978 than they had in 1968 (Fig. 1). Further observation disclosed that approximately two-thirds of the participants had not participated in young or adult farmer meetings conducted by high school vocational agriculture teachers. Convers[illegible] approximately 90 percent of the participants had participated in commercial company sponsored programs.

Based on data presented in Table 1, observation was made that participants placed more value on their participation in commercial company educational programs than on programs conducted by extension, vocational agriculture programs and short courses conducted by Iowa State University. Observation was further noted that as the educational background of the participants increased, the greater the value they placed on their participation in all programs.

Table 1. Educational attainment by respondent by participation in educational programs since 1968.

Program	Educational attainment(a) Less than 12 years	 12 years	 More than 12 years	F-value
	Mean	Mean	Mean	
Young or adult farmer classes by Vo-Ag. instructor	1.1 (14)b	1.6 (166)	1.7 (35)	2.703
Meetings and clinics by extension personnel	1.7 (14)	2.1 (166)	2.5 (35)	3.379*
Short courses by Iowa State University	1.0 (14)	1.1 (166)	1.3 (35)	2.828
Commercial companies-special meetings	2.5 (14)	2.9 (166)	2.8 (36)	1.651

* $p < .05$

(a) The scale used to compute group means was as follows: 4 = regular, 3 = frequent, 2 = seldom, 1 = never.

(b) These N values represent the number of respondents for each group mean.

When the value of instruction received through vocational agriculture programs was compared with selected variables, the data revealed that those participants who placed higher value on instruction received were involved in individual farming operations, were well established in farming, were operating larger acreages, were showing greater profit margins from their farming enterprises, and were participating more extensively in leadership activities in the community. Further observation indicated that the vocational agriculture teacher was rated as being of "little value" by all respondents as a source of technical information.

Similar comparisons made for extension programs revealed that those participants who placed high value on instruction received through extension classes and courses were well established in farming, were operating larger farms, were realizing more net farm income, were participating more extensively in community leadership activities, and were involved in partnership farming operations. Extension agents were perceived by all the participants as being of "some value" as a source of technical information.

Participants placed highest value on farm magazines as a source of technical information followed by commercial companies and radio. Those farmers who identified themselves as well-established placed more value on farm magazines as a source of information than did those who were less well established in farming. A similar observation was made for those who had participated more extensively in community activities and organizations.

Areas of instruction rated as being most needed by the participants were crop and livestock production, agricultural marketing, and farm record analysis. As was observed earlier, those participants who identified themselves as well established in farming and were involved more extensively in leadership activities placed highest value on instruction received in these instructional areas.

When given a choice of teaching approaches for dissemination of agriculture information, respondents reported highest value for area short courses followed by closed circuit television programs.

CONCLUSIONS

Based on an analysis of the findings of this study, the following conclusions were drawn and recommendations made.

During the past 10-year period, farm operators have not participated in educational opportunities available to them. According to the data, educational programs, especially young or adult farmer classes, and Iowa short courses, were not participated in by a majority of the respondents in this study. Extension meetings and clinics were not attended or rarely attended by the majority of the respondents.

Commercial companies enjoyed wide acceptance on the part of farm operators, from data analyzed in this study. Respondents place high value on this source of information, regardless of educational attainment or type of farming operation.

Farm magazines were the first choice of the respondents, as a source of technical information with commercial companies being next and radio for agriculture being third, according to the value rating.

Area short courses were favored as the teaching approach for dissemination of agriculture information by the respondents.

Recommendation is made that adult educators in agriculture carefully analyze the needs of farmers in their communities and design meaningful programs to meet these needs. A variety of teaching methods should be utilized when teaching adult farmers and every effort made to carry educational programs out to the farmers. These programs should consist of short courses, educational television and other programs found stimulating to farmers.

More exposure should be made of the services provided by extension, vocational agriculture, and the universities through media such as farm magazines.

Finally it is recommended that educational programs should be designed to assist all farmers. These programs should be designed for farmers with specific needs as well as for farmers with general or common needs.

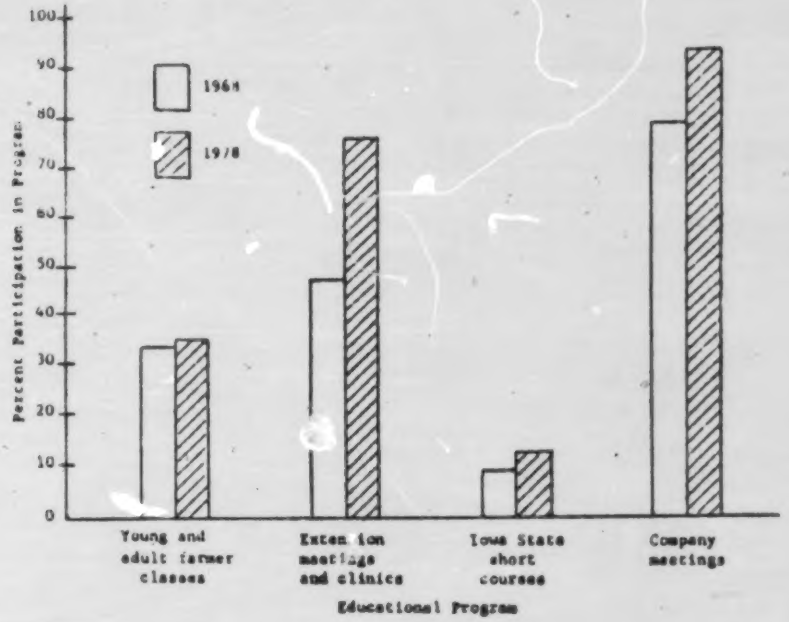

Figure 1. Participation in educational programs in 1968 and 1978

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FROM CHAUTAUQUA TO ADULT EDUCATION: THE EVOLUTION OF AN IDEA, 1874-1924

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Morse Cartwright (1935, p. 3), the long-term executive director of the American Association for Adult Education, claimed that the term adult education was not in use in the United States before June, 1924, when Frederick Keppel, President of the Carnegie Corporation, called a conference to explore possible roles of the Corporation on behalf of adult education. C. Hartley Grattan (1955, p. 328) challenged Cartwright's claim, noting that the term adult education was used as early as 1900 in a national magazine to refer to Leipziger's free lecture system in New York City. Grattan contended that in the twenties persons were already beginning to use the term. Cartwright and the American Association for Adult Education (AAAE) merely popularized it, they did not introduce it.

Without question, the Carnegie Corporation through the AAAE played a crucial role in promoting adult education as an educational idea. But, nonetheless, the question remains: Was Cartwright's claim overstated? Using published documents of persons associated with efforts to provide education for adults and of writers about general education, this study explored the use of the term adult education as an educational idea prior to 1924 and whether other terms were used to express beliefs in, or practices of, the education of adults.

THE IDEA OF EDUCATIONAL EXTENSION

How to extend educational opportunities into adulthood for persons who had completed their formal schooling became a growing concern of many individuals and institutions after the Civil War. In these efforts are to be found the first systematic formulations about the nature of education for out-of-school adults.

In the vanguard of this movement was the Chautauqua Institution, founded in 1874 (Stubblefield). Noted for its innovativeness, Chautauqua extended higher education to adults through its summer assembly, correspondence study program, reading clubs, extension lectures, and public lectures. Though the Chautauqua founders and their successors based their work upon clearly articulated beliefs about the nature of learning in the adult years, they never translated "the Chautauqua idea of education" into a general theory of education for adults that transcended the Chautauqua program.

Melvil Dewey (Vann, 1978), on the other hand, had no such reservations about what this work should be called. At Chautauqua in 1898 at the annual convention of the American Library Association, Dewey promoted his idea of

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"Home Education" and in 1899 he organized a Department of Home Education in New York State to be carried out primarily through various forms of library extension. By home education Dewey meant education that could be obtained at home and not just at school and education that was for adults as well as for the young, and as he said "lasting not for a short course but through life."

Dewey's term home education was not widely accepted. After Herbert Baxter Adams introduced the English university extension idea to the American Library Association in 1887, the term extension came into use. The English idea was tried first by the libraries, then by a private association, the American Society for the Extension of University Teaching (1890-1916), and later became "americanized" into university extension.

While the basic intent of John Vincent of Chautauqua, Melvil Dewey, Herbert Baxter Adams, and others was to extend higher education to adults, they did not equate this work of extension with university extension. Their idea of extension contained several elements. First, they believed that learning was a continuous process through life and not confined to the years of formal schooling. Second, adults should be provided educational opportunities that permitted them to combine learning with their occupation. They should be able to study at home, in the evenings, or during summer vacation. Third, several social agencies shared responsibility for providing these opportunties: libraries, universities, museums, clubs, evening schools, churches, and newspapers and magazines.

The idea of extending education had many names: chautauqua, home education, extension, and popular education. The term that gained the greatest currency was educational extension, though the details of how this term came into use are not clear. Nevertheless, two interpretations of this movement appeared under the title of educational extension between 1901 and 1904. In 1901 Herbert Baxter Adams, professor of history at Johns Hopkins University and prominent popularizer of higher education for the masses, published a historical-descriptive monograph, Educational Extension in the United States.

The highest recognition of the term educational extension and its relation to the whole educational scheme came in 1904 in Edwin Grant Dexter's History of Education in the United States. Dexter divided education into three parts: schools, higher education, and educational extension. By educational extension Dexter meant the non-school education activities for adults. Such activities cannot be omitted, Dexter said, if a complete history of education was to be written. "The history of education in a country like ours would not be complete without a consideration of certain institutions entirely outside the organized machinery of the schools, which contribute largely to the general culture and extended scholarship of great masses of the people" (p. 479). The two classes of institutions that constitute this sphere of education are those used entirely within the home and those that take one outside the home but without interfering with business occupations. Libraries, newspapers, and periodicals belong to the first class; summer schools and assemblies, evening and correspondence schools, learned societies, lecture courses and lyceums belong to the second class.

THE IDEA OF ADULT EDUCATION

It is not clear from my reading how and why the term adult education came into use in place of educational extension, but in 1911 and 1916 in two major publications the term adult education appeared as a generic term for the educational activities of adults. The 1911 edition of the Cyclopedia of Education contained an article titled, "Adults, Education of," in which the term adult education was used as a covering term. For adult education in the United States, the reader was refered to articles about specific agencies. The adult education provided by these agencies was classified into four types: practical or vocational, civic training, a combination of cultural and civic training, and clubs that provided library facilities and physical exercise opportunities.

The Annals of the American Academy of Political and Social Sciences featured in the September 1916 issue "New Possibilities in Education." Part III treated "The Extension of Opportunities for Adult Education" in 15 articles arranged in four major sections: continuation schools and university extension, large-scale demonstrations, library extension and miscellaneous official agencies.

Ambrose L. Suhrie, assistant professor of elementary and rural education at the University of Pennsylvania, edited this section on extending adult education opportunities. In the introduction he called attention to the importance of adult education. Calling upon all educational agencies at the local, state, and national levels to attend to the "post-school education of both adolescents and adults," he stated that "thoughtful people" held several "cardinal doctrines" about adult education. Recognizing the importance of education, they regarded education as "a life-long process" that could be pursued independently of formal educational institutions. Moreover, one could learn while continuing to work and did not have to become an entirely leisured person; education could result from the work that one did, not just from studying books.

At least one institution used the term adult education for its educational activities: the free lecture system of New York City. Henry Leipziger (1898), its director for many years, said that its roots were in university extension; he referred to it as "this scheme for adult education" (p. 85). At the 1904 convention of the American Social Science Association, Leipziger presented a paper on "Education of Adults" in which he described the work of the lecture system, Herman G. Bumpus presented "How Adult Education Is Being Furthered by the Work of the American Museum of Natural History," and Melvil Dewey discussed the free lecture system and his ideas of home education in a paper called "Adult Education."

Adult education as an idea received increased attention in the aftermath of World War I and before Carnegie Corporation's involvement. Editorials (Boone, 1922; Croly, 1923) called for adult education as a form of moral and social education to remedy social ills. Some educators began to call for a public policy on adult education. At the 1922 National Education Association annual convention, J. H. Beveridge, school superintendent in Omaha, Nebraska, and Frank Graves, commissioner of education for New York State, supported the work of public schools in adult education. Beveridge argued that public schools were justified in spending monies for adult education, while Graves called for an educational policy that recognized the responsibility of public schools to provide education for adults as well as for children and youth.

One of the most thoughtful analyses came from Robert Hill (1923), Chief of the Division of Teacher Training and Certification of the New York State Department of Education. Noting the diversity of the adult education enterprise, he characterized adult education by grades, by financial character, by its objectives, and by its results. Adult education, he believed, was no longer a matter that could be left solely to the individual: it had become a matter of public and social interest. When examined in this perspective, some of the shortcomings of the present organization of adult education could be seen. As an example, the sponsorship of adult education had policy and program implications. Adult education under private auspices and financing should more often be called propaganda and not education. Under public auspices and financing, adult education, particularly in public schools, had no clear funding guidelines and often provided only elementary level education in literacy and citizenship.

In an address at the Federal Conference on Home Education at the University of Minnesota, W. S. Bittner (1924) stated the principle of adult education: "The continually changing adult requires a continued education in part directed by the state" (p. 297). Bittner thus combined two basic ideas: adulthood as a continually changing process and the responsibility of the state for providing, at least in part, some direction through education for adult development.

In 1924 the National University Extension Association (NUEA) and the American Library Association (ALA) attempted to articulate their relation to adult education. At the 1924 NUEA national convention, President Richard R. Price acknowledged that "on the whole the University Extension movement is a movement for the furtherance of adult education" (p. 13). Adult education ranged from disseminating knowledge to organized instruction at the college level. Both the passive acquisition of knowledge and study where the mind actively grapples with ideas have their place, but university extension work in adult education is distinquished by its use of study as the method.

The ALA in 1924 created a Commission on the Library and Adult Education to explore the role of the library in adult education and began publication of a journal, Adult Education and the Library. The first issue noted that adult education had many meanings: helping illiterates to read, Americanization of the foreign born, and vocational training. But there was also a broader meaning that recognized education as a "life-long process" needed by all persons regardless of the level of formal education. Only the fundamentals were acquired in the years of formal education, but the real development occurs in the adult years when adults take responsibility for their own learning.

In 1924 W. S. Bittner began his address before the Federal Conference on Home Education with these words: "Few of us realize the scope and power of the adult education movement. We do not know how big it is because it has grown so fast and so variously that it is truly a world movement. . ." In reference to Bittner's address, Richard R. Price, then President of NUEA, commented: "The growth of interest in adult education is one of the outstanding phenomena of the first two decades of the twentieth century." By the time of Carnegie's intervention, the way had been prepared.

CONCLUSION

Carnegie's intervention in the field of adult education in 1924 marks a watershed, for the AAAE was the first national organization for adult education in the United States. But Cartwright's claim that the term adult education was not in use in the United States before June, 1924, contains both truth and exaggeration. The way for the immediate and widespread acceptance of the term adult education had been prepared by a two phase evolution in American thought and practice about the education of adults.

In the first phase the idea and practices of many individuals and institutions found expression in the term educational extension. Recognition of educational extension as a new field or level of education came between 1901 and 1904. In this same period the term adult education began to be used as a covering term for a broader range of educational activities.

In the second phase between 1919 and 1924 adult education came into use as a term and was recognized as an educational phenomena, to be regarded as a movement involving many institutions and world-wide in scope. Libraries, public schools, and universities began to sort out their relationship to this movement and their responsibility for adult education. There was progress beyond merely describing and classifying the types of adult education to analyzing the policy and program implications of the sponsoring agencies. There was also the recognition that adulthood was a time of change to be guided by education. And the state bore responsibility -- in part -- for providing that education.

The idea of adult education did not burst suddenly upon the scene in 1924. Thoughtful persons in many areas of educational and national life had already begun to regard the education of adults as adult education and to address some questions that would be explored more fully by the American Association for Adult Education.

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MECHANICS' INSTITUTES IN NINETEENTH CENTURY AMERICAN SOCIETY

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INTRODUCTION

Mechanics' institutes were voluntary organizations which had among their major objectives the diffusion of scientific and technical knowledge through sponsorship of libraries, lectures, collections of scientific models, and industrial exhibitions. In a few cases, regular publication of a journal or other periodical and the establishment of a school would be included among the formal activities of an institute. These associations, which first began to appear around 1820, have long been recognized as having been among the earliest purveyors of organized adult education in the United States. Very little research, however, has been devoted to an investigation of their origins, number, distribution, and relationship to other developments in adult education. These questions form the focus for this study and data was collected by means of reference to a large variety of primary and secondary sources.

NUMBERS, TYPES, AND DISTRIBUTION OF MECHANICS' INSTITUTES

The number of mechanics' institutes found in this investigation was 257. Organizations were considered mechanics' institutes if they were voluntary organizations, if their names indicated reference to mechanics or apprentices, and if their organizational goals were both clearly educational in nature and directed toward mechanics and apprentices by means of libraries and lectures. No claim of completeness can be made for the number discovered, although the ones that were found probably encompass a substantial majority of those that came into existence in that century.

America's mechanics' institutes have not been well differentiated from one another in the historical literature. Of those that were found in this study, there appear to have been three types which developed in this country. These can be categorized on the basis of their process of initial organization.

Type I

The first type of mechanics' institute grew out of benevolent associations organized by craftsmen, manufacturers, and tradesmen in some of the larger American cities. These associations were originally created to provide financial assistance to members who were in need and unable to work or to their widows. Later, in some cases, funeral benefit funds and even banks to

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loan money for their business ventures were established. The first of these associations appears to have been the General Society of Mechanics and Tradesmen in New York City, which originated in 1785 and incorporated in 1792. Between 1792 and 1820, at least eight other similar associations were founded including those in the cities of Newport and Providence, Rhode Island; Portsmouth, New Hampshire; Boston, Newburyport and Salem, Massachusetts; Portland, Maine; and Staunton, Virginia.

In 1820, most and perhaps all of these benevolent organizations began to add activities that were clearly educational in nature. First in Boston, through the efforts of William Wood, a library for apprentices was formed and quickly the innovation spread to the other mechanics' associations. In subsequent years lecture series began to be offered regularly by most of the same organizations. In short, these benevolent groups became mechanics' institutes, that is, providers and sponsors of educational programs for persons engaged in some form of manufacture, by a process of expanding upon and extending their original objectives. Not only is there no evidence of a parallel development in the historical literature on the mechanics' institutes of Great Britain, where the first mechanics' institute is usually said to have appeared in 1823, but there is information which suggests that the New York apprentice library served as the inspiration for the one established by the London Mechanics' Institute in 1824. This provides grist for the argument that the development of mechanics' institutes was occurring simultaneously, though in somewhat different ways, in both countries. Three of these organizations still exist in the United States.

Type II

The second type of mechanics' institute was founded entirely as a new organization with the primary objectives those of establishing a library, a course of lectures, a collection of scientific instruments and mechanical models, and manufactured product exhibitions and competitions. As in the first type of mechanics' institute, these institutions were financed through member fees and contributions which were supplemented by receipts from lectures and fairs that they sponsored. The second type, however, tended to be more dependent upon these latter sources of funds for their survival than were the first type of mechanics' institutes.

The first mechanics' institute of this type was not the Franklin Institute of Philadelphia, as is usually supposed, but rather the New York Mechanic and Scientific Institution. The latter organization was founded in 1822, again before the 1823 development in Great Britain, and was known to the founders of the Franklin Institute when it was created in 1824. The Franklin Institute, however, was a longer lasting and much more potent force in stimulating interest in and formation of similar institutions in the United States. A total of 88 mechanics' institutes of this type were found and, on the basis of the founding dates that have been discovered for forty-eight of these, the most rapid rate of growth in their number occurred between 1825 and 1820 when at least fifteen institutions were formed. At least five institutes were founded thereafter in each five year period between 1830 and 1844. The next and last period of substantial growth apparently occurred between 1850 and 1855. Mechanics' institutes of this type were found to have existed in 59 cities and towns in twenty-three states and the District of Columbia. The states with the largest number of mechanics' institutes appear to have been New York, Massachusetts, New Hampshire, and Maine. Most of these associations ceased activity by 1870, but four have continued their existence into the present.

Type III

The third type of mechanics' institute was one that formed in response to the availability of funds from a source other than a member. The largest number of mechanics' institutes and certainly the least recognized fall into this category. In Indiana, 146, and in Illinois sixteen, associations sometimes with the name Working Men's Institute, were formed, beginning in 1855, to obtain a grant from the estate of William Maclure (1763-1840). Maclure, a geologist who has been called the "father of American geology" and a founding member and president for many years of the Academy of Natural Sciences of Philadelphia, had become greatly interested in the education of workers. In 1824 he joined the New Harmony experimental community initiated by Robert Owen in Indiana and was early convinced that the mechanics' institutes idea that had become popular in Great Britain should be imported into the United States. Efforts to establish a short-lived mechanics' institute in New Harmony occurred while Maclure was resident there.

When William Maclure died he left a will which established a trust fund from which grants were to be made "for the diffusion of useful knowledge amongst the working classes, who labor with their hands and earn their living by the sweat of their brow." Up to five hundred dollars were to be distributed to any group of working men who established a reading and lecture room and accumulated a library of at least one hundred volumes. The terms of the will were eventually carried out after a lengthy legal struggle but distribution of the funds was concentrated in Indiana, where the trust administrator was an important political figure. Most, if not all, of the 160 associations were formed between 1855 and 1860; only a handful of these, however, survived past the years of the American Civil War. None now exist.

FUNCTIONS OF MECHANICS' INSTITUTES

It would be an error to assume simply that providing an education through lectures, libraries, and exhibitions was in itself the sole motivating force behind the formation of mechanics' institutes. In much the same way as adults approach adult education from a variety of motives, adult education institutions reach out for community support and participation by appeal to a variety of human and social values. Schroeder has recently proposed a typology of what he argues are four central values which have served as the focus around which general objectives in adult education have been formed. While the typology was based upon a review of contemporary adult education institutions, it was found useful in categorizing the values which were articulated or implicit in the rhetoric and programs offered in the prospectuses, charters, constitutions, and public speeches which characterized the formative period of the American mechanics' institutes. In fact, each of the four central types were found to have been clearly expressed.

Individual Growth and Development

To "enlighten the minds and stimulate the genius" of mechanics and artisans was one of the objects claimed by the founders for the New York Mechanic and Scientific Institution in 1822. This objective inevitably formed the first step in any argument for the introduction and acceptance of mechanics' institutes into a community.

Social Well-being

One of the reasons that mechanics' institutes came into existence was because a community of persons who worked in manufacturing had grown to sufficient size to achieve a certain degree of self consciousness. It was to be expected, then, that a call "to elevate the prospects of this highly important class of our fellow citizens" and to assist them in the "attainment of a high and laudable standing in society" would be among the values that would be claimed for mechanics' institutes. Thus "to promote the interests and happiness of the mechanical professional" formed one of the rallying points for mechanics' institutes.

Spiritual Well-being

While mechanics' institutes were established as non-sectarian, their founders and supporters were often deeply committed to Christianity and particularly Protestantism. For some persons motivated by religious commitment, the mechanics' institutes represented an opportunity to act benevolently or charitably toward persons less privileged than themselves and to assist apprentices and wayward mechanics in avoiding the temptations of vice or even crime. For others, science itself represented the revealed word of God and thus to popularize and spread the findings of science was simply another way of expressing religious conviction. No evidence has been found of American mechanics' institutes being subjected to the opposition and hostility that was expressed by clergy in the case of Great Britain's mechanics' institutes. In fact, clergy were often honored guests of and, particularly in later periods, lecturers for mechanics' institutes.

System Maintenance and Control

Mechanics' institutes were essentially conservative in nature. With the introduction of the factory system and the division of labor, the work force was being transformed. Thus, advice to apprentices and journeymen alike from speakers before institute audiences was to avoid "vice and dissipation" and to conduct themselves with "industry, ardour, sobriety, and perseverence." The rewards of wealth and social mobility awarded those who applied themselves faithfully to their work. Ultimately, it was argued, not only would the individual benefit from commitment to hard work and the application of scientific knowledge learned in the mechanics' institutes, but so would the community at large, which would enjoy better products and better citizens.

MECHANICS' INSTITUTES AND AMERICAN ADULT EDUCATION

The mechanics' institutes formed one of the earliest national phenomena of institutionalized adult education in America. With the Lyceum, they share in the popularization of the public lecture. They may have been the first examples of organized continuing eudcation specifically intended for groups of persons employed in industry that appeared in the United States. Libraries established by mechanics' institutes were not infrequently among the first ever to have been established in their cities and towns and, for the time, some of these were among the larger and more important libraries in the country. The Maclure bequest has been credited with providing stimulus to the emergence of public libraries in the state of Indiana. Libraries organized by mechanics' institutes still exist in New York, San Francisco, and New Harmony.

The current-day scientific and technical museums in the United States can also trace some of their roots to the mechanics' institutes. The Science Museum of the Franklin Institute, though formally organized in 1833, traces its history to the collection of scientific models begun by the Institute at its inception in 1824. Such collections, which sometimes included examples of machines, were common endeavors in mechanics' institutes. The American Institute of New York, which actually created a small museum of inventions in 1835, proposed establishment of a "Palace of Industry" museum in 1871. Moreover, this institute was one of more than a few mechanics' institutes, though probably the most persistent, prominent, and successful amongst them, which presented public exhibitions of American industrial products on a regular basis. Their fairs drew many tens of thousands of visitors. The trade shows of today can also trace their lineage back, in part, to these early efforts by mechanics' institutes.

Mechanics' institutes also had impact on the emergence of formal training in American industry. Their oblique recognition of some of the limitations in the process of apprenticeship training and the efforts to remedy them are but one aspect of this influence. A more direct link between the mechanics' institutes and training in industry may be found in the establishment in New York City in 1849 of the first factory school in the United States. The owner of that factory, Richard March Hoe, had visited and been impressed by mechanics' institutes in Great Britain in the late 1830s, had in his library the classic literature of the mechanics' institute movement, and was an active member of three of New York's mechanics' institutes. The school he sponsored continued well into the present century and became an important symbol in the pre-World War I corporation school movement.

Cooperative Extension also appears to have links to the mechanics' institutes; some even bore both the words agricultural and mechanic in their names. The American Institute not only sponsored a Mechanics' Club but also a Farmers' Club. The latter's success spawned imitators who were urged, in 1846, to "scatter knowledge" and dispell prejudices about advanced techniques. James J. Mapes (1806-1866), an officer in three mechanics' institutes and an editor of two journals sponsored by mechanics' institutes, set up an experimental farm near Newark, New Jersey in 1847 and then published the results of his agricultural experiments in The Working Farmer, a journal he founded in 1849 and edited until 1863. Mechanics' institutes and persons associated with them have been linked also with developments leading to the Morrill Act of 1862 which established the land grant college, from which Cooperative Extension ultimately emerged.

CONCLUSIONS

The major findings about American Mechanics' institutes in this study were that there were far more of them founded than the standard histories of adult education have heretofore suggested that they could be differentiated into three major types by reference to their origins, that they were promoted by an appeal to values that could be sorted into categories that today are viewed as core issues in the institutionalization of adult education, and, finally, that they appear to have previously unrecognized historical connections with other major institutional developments in American adult education. The significance of these last two findings lie in their demonstration of the role that historical research may play in identifying and assessing the evolving structure of adult education in this country.

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THE URBAN COMMUNITY EDUCATION DIRECTOR

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INTRODUCTION

The purpose of this paper is to present the results of the responses by urban community education (CE) directors in two recent national research efforts. The problem to which this paper responds is the scarcity of data to assist the urban CE director in discovering both the state-of-the-art of CE practice in urban areas of the U.S. and the directions toward which it should be moving.

METHODOLOGY

Data Collection. The studies were conducted in 1979[1] and 1980[2] by the Urban Community Education Task Force under the sponsorship of the C. S. Mott Foundation and the National Community Education Association. The 1979 study surveyed the director[3] and others[4] of each U.S. CE organization operating within S.M.S.A.'s exceeding 100,000 population. Sixty-eight of 86 or 79% responded. The 1980 study comprised a site visit and personally administered survey to the director and others[5] at twelve of the 68 previously responding organizations, selected randomly within geographical strata across the U.S.

Instruments. The 1979 instrument was a mailed self-completion questionnaire the purpose of which was to gather perceptions about specified program[6] and process[7] components of CE. Respondents were asked to determine whether each program and process was included in their local organization and whether it was needed in the community. Other questions were asked which are not addressed in this paper. The 1980 instruments were a series of four self-completion questionnaires, the second of which was specifically designed for each respondent role and the last two of which were reserved for directors, coordinators, and council and agency persons. The questionnaires were completed in the presence of a survey administrator from the Task Force. Respondents were asked a wide range of questions, including the identification of specified community problems which CE should address, blockages to the growth and development of CE locally, and methods through which the respondents were trained in CE.

Statistical Analysis. For the purpose of statistical analysis of the descriptive data obtained from director responses to the questionnaires, seven research questions have been developed.

Question I - Which programs do more directors include and not include in urban CE organizations? Table 1 reveals that the highest percent of directors include enrichment and recreational components for the elementary school through older citizen age groups, and do not include community service components of career counseling, employment services or public assistance or the early childhood educational components in the programs of their organizations.

Table 1. Programs Included and Not Included in Urban CE Organizations: Highest Percent of Director Responses

%	Programs Included	%	Programs Not Included
95	Adult (Enrichment)	62	Public Assistance (Community Service)
91	Youth (Recreational)	58	Employment Services (Community Service)
89	Youth (Enrichment)	52	Day Care (Educational)
89	Older Citizen (Enrichment)	49	Kindergarten (Educational)
88	Elementary (Recreational)	49	Career Counseling (Community Service)

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Question II - Which programs do more directors believe to be needed and not needed in urban communities? Table 2 demonstrates that the greatest number of directors identify enrichment and recreational components for youth through older citizens and families as needed, and the community service components of career and personal counseling, employment service and public assistance, as well as early childhood education as programs not needed in urban communities.

Table 2. Programs Needed and Not Needed in Urban Communities: Highest Percent of Director Responses

%	Programs Needed	%	Programs Not Needed
95	Family/Mixed (Enrichment)	37	Kindergarten (Educational)
91	Family/Mixed (Recreational)	27	Personal Counseling (Community Serv.)
89	Youth (Recreational)	26	Employment Services (Community Serv.)
88	Adult (Enrichment)	24	Public Assistance (Community Service)
88	Older Citizen (Enrichment)	23	Career Counseling (Community Service)
88	Older Citizen (Recreational		

Question III - Which processes do more directors include and not include in urban CE organizations? Table 3 shows that most often directors include the citizen participation components of the neighborhod council and council communications and planning and the agency cooperation components in the areas of programming and use of facilities, and do not include the community development components of attracting new industry, investing local money locally, forming a metropolitan planning body, increasing household income, and supporting welfare councils in the processes of their organizations.

Table 3. Processes Included and Not Included in Urban CE Organizations: Highest Percent of Director Responses

%	Processes Included	%	Processes Not Included
94	Neighborhood Council (Citizen Part.)	71	Attracting Industry (Comm. Devel.)
92	Facilities (Agency Cooperation)	70	Local Investment (Comm. Devel.)
92	Council Planning (Citizen Partici.)	61	Metropolitan Planning (Comm. Devel.)
92	Council Communications (Cit. Part.)	55	Household Income (Comm. Devel.)
90	Programming (Agency Cooperation)	54	Welfare Councils (Comm. Devel.)

Question IV - Which processes do more directors believe to be needed and not needed in urban communities? Table 4 brings out that directors select most frequently the citizen participation components of activating new resources and council fact finding, planning, communications and evaluation as needed, and the community development components of forming a metropolitan planning body, supporting welfare groups and cooperating with the Community Development Agency as not needed in urban communities.

Table 4. Processes Needed and Not Needed in Urban Communities: Highest Percent of Director Responses

%	Processes Needed	%	Processes Not Needed
93	Activating Resources (Cit. Part.)	35	Metropolitan Planning (Comm. Devel.)
92	Council Factfinding (Cit. Part.)	32	Social Movements (Comm. Devel.)
92	Council Planning (Cit. Part.)	29	Attracting Industry (Comm. Devel.)
92	Council Communications (Cit. Part)	26	Welfare Councils (Comm. Devel.)
92	Council Evaluations (Cit. Part.)	25	Community Development Agency (C.D.)

Question V - Which problems do more directors believe should be addressed by urban CE organizations? Table 5 shows that more directors relate problems of populations, like youth, the family, the elderly, the handicapped and drug abusers, to urban CE organizations than areas with special significance for urban communities: social and economic deprivation, urban blight, school integration, crime and unemployment.

Table 5. Problems Which Should Be Addressed by Urban CE Organizations: Percent of Director Responses

%	Problems	%	Problems (cont.)
92	Youth	77	Urban Blight
92	Family	77	School Integration
92	Handicapped	69	Crime
85	Drug Abuse	69	Unemployment
85	Elderly	62	Public Transportation
77	Soc/Econ Deprivation	46	High Local Taxes

Question VI - Which limitations do more directors believe to be major blockages to the growth of urban CE organizations? Table 6 brings out that a majority of directors see the lack of funds and lack of integration of CE into the regular school program as serious blockages to the development of CE. Nearly half of the directors call school district policies a major limitation, and nearly one-third select the blockages of the lack of knowledge about CE, central office leadership, and custodial problems. A relative few directors cite the lack of support at state and board of education levels, inadequate staff, line staff relationships and site level leadership, and very few choose the lack of volunteers or inadequate facilities as major blockages to the growth of urban CE organizations.

Table 6. Limitations to Growth of Urban CE Organizations: Percent of Director Responses

%	Limitations	%	Limitations (cont.)
54	Lack of Funds	15	Inadequate Staff
54	Lack of CE/K-12 Integration	15	Lack of Board Support
46	School District Policies	15	Line Staff Relationships
31	Lack of CE Knowledge	15	Site Level Leadership
31	Central Office Leadership	8	Lack of Volunteers
31	Custodial Problems	8	Inadequate Facilities
23	Apathy Toward Program	0	Lack of Community Support
15	Lack of State Support	0	Community School Locations

Question VII - Through which methods are more directors in urban CE organizations trained? Table 7 indicates that more than 20% of directors are trained in the accumulation of workshops, more than half from participation at professional conferences, nearly 40% through individual consultation and workshops of one week or more duration, and nearly one-third by way of incidental conversation. Less than one-fourth of the directors are exposed to CE through formal CE degree training.

Table 7. Training Methods for Directors in Urban CE Organizations: Percent of Director Responses

%	Methods	%	Methods (cont.)
62	Accumulation of Workshops	31	Incidental Conversation
54	Professional Conferences	23	Formal CE Degree Training
38	Individual Consultation	15	A Short Workshop (- one week)
38	A Long Workshop (one week +)		

Findings

Directors of urban CE organizations have the following tendencies:

1. To include programs in the descending priority of enrichment, recreational, educational and community service.
2. To identify program needs of their communities in the descending priority of enrichment, recreational, educational and community service.
3. To include processes in the descending priority of citizen participation, agency cooperation, program evaluation and community development.
4. To identify process needs of their communities in the descending priority of citizen participation, agency cooperation, program evaluation and community development.
5. To define populations to be served rather than urban issues to be solved as problems their organizations should address.
6. To perceive limitations upon organizational growth and development primarily as the lack of funds and the lack of support from the school district in its policies, failure to integrate CE into the K-12 mainstream, ignorance about CE, and problems with central office leadership and custodians.
7. To acquire training in CE in the descending priority of workshops, conferences, consultations, incidental conversations and degree training.

Discussion

Conclusions. Urban CE directors are meeting the leisure time needs of citizens but are not delivering the community service programs related to basic needs like employment career counseling and public assistance.

They carry out citizen participation techniques but not the community development processes which deal with housing, industry, local investment and welfare councils, concerns of people in greater need.

They generate activities for target populations like youth, the family and the handicapped, rather than focus on community problems like social and economic deprivation, neighborhood deterioration, school integration and crime.

They have an uneasy relationship with the sponsoring school district. They question how well the administration understands and is committed to the mainstreaming of CE into the institution.

They receive training sporadically through workshops and conferences, consultation and conversation.

Implications. Urban CE directors are not responding to basic needs in urban communities. This is clear from the nature of the programs and processes they provide to their citizens.

They are not problem oriented. They focus on marketing audiences rather than on attacking the burning issues of urban life. They are programmers rather than facilitators of community problem solving.

They are not building adequate bridges to the sponsoring agency. The concerns over lack of knowledge about CE, district policies and K-12 integration require the participation of the community educator for resolution.

They are critically undertrained for their positions. Only 23% of them have participated in formal degree training.

From the study it is suggested that directors of urban CE organizations do serious needs assessment to identify and prioritize the needs of their communities; focus on the real problems of the community; develop and implement programs and processes which address those problems; cultivate understanding of and active participation in CE with the leaders of the school district and other agencies; and establish a personal training program in the CE skills still needed.[8]

A comment frequently overheard among community educators is that CE is more effective in rural areas. I would suggest that it is the rural model which works better there, although we continue to attempt to implement it in urban centers. If CE is going to have a positive impact upon the urban area, the directors will have to put aside the rural model and prepare themselves to begin responding to the most serious problems in their own communities. Time is running out.

Notes

1. Nance, Everette E., William R. Venable, James D. Dixon II, and Karyn Kulage. An Assessment of the Impact of Community Education on Urban Communities. Washington, D.C.: National Community Education Association, 1979.
2. Nance, et. al. An Assessment of the Impact of Community Education on Urban Communities: A Final Report. University of Missouri-St. Louis: unpublished, 1980.
3. Each director was identified by the CE development center serving his/her state.
4. Other respondents from the 1979 study included teachers or staff persons, students or recipients of services, community council members and cooperating agency representatives.
5. Other respondents from the 1980 study included school superintendents, board of education members, principals and their community school coordinators, community council members and cooperating agency representatives.

6. Respondents from the 1979 study identified programs as included in urban CE organizations or needed by urban communities from the following list:

Educational
Early Childhood
-day care
-pre-school
-kindergarten
Elementary
Youth
Adult
-ABE
-GED
-H.S. credit
-ESL
-Vo-tech
-CETA

Enrichment
Early Childhood
Elementary
Youth
Adult
Older Citizen
Family/Mixed

Recreational
Early Childhood
Elementary
Youth
Adult
Older Citizen
Family/Mixed

Community Service
Health/Medical
Public Assistance
Employment Service
Personal Counseling
Career Counseling
Referral Services

7. Respondents from the 1979 study identified processes as included in urban CE organizations or needed by urban communities from the following list:

Program Evaluation
Needs Assessment
Continuous Feedback
Annual Evaluation

Agency Cooperation
Facilities
Organization
Programming
Budgeting
Advertising
Resource Directory

Community Development
Community Planning
-metro planning body
-city-wide planning body
-CD Agency
Community Organization
-organizational activities
  capacity building
  intergroup communication
  community forums
  problem solving
  organization for action
-related organizations
  consumer groups
  health organizations
  neighborhood associations
  welfare councils
  social movement groups
Economic Development
-increasing household income
-attracting new industry
-local investment
Political Awareness
Leadership Development

Citizen Participation
Scope of Council
-district wide
-neighborhood
-interagency
Functions of Council
-fact finding
-planning
-coordination
-communications
-activating resources
-evaluation

8. Some of the areas in which the urban CE director needs a degree of knowledge are accounting, administration, adult education, career planning, citizen participation, community development, community services, conflict intervention, counseling, curriculum development, developmental life stages, early childhood development, evaluation, gerontology, grant writing, group dynamics, health services, housing rehabilitation, instructional methodologies, job placement, leisure time, needs assessment, networking, recreation, special education, staff development, theoretical foundations, time management, urban planning, vocational education, and voluntarism.

IMPACT OF A SHIFT IN NATIONAL PUBLIC POLICY ON CONTINUING EDUCATION ADMINISTRATION IN INSTITUTIONS OF HIGHER EDUCATION

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INTRODUCTION

This research project used methodology, theories, and concepts adapted by the researcher from the field of public policy analysis for the study of the impact of a shift in public policy on continuing education administration and practice. Few research efforts relative to adult and continuing education have systematically used methodology, theory, and concepts adapted from that field. Both the approach used as well as the findings with their implications break new ground for continuing education research and practice.

BACKGROUND

Before the 1976 Amendments, the stated purpose of Title I (HEA, 1965) was educationally helping persons solve community problems. In response to many forces for change affecting higher education and its societal context, Congress passed the 1976 Amendments to the Higher Education Act (including Title I Part A -- Section 101 a, 2) which specifically called for "support of the expansion of continuing education in colleges and universities" (PL 94-482, 1976; Bender, 1977; NACECE, 1979). The addition of this subsection was a shift in wording from the 1965 Higher Education Act and from the 1972 Amendments to that Act. After the 1976 Amendments, educationally helping persons solve community problems was still allowed. In addition, supporting the expansion of continuing education in colleges and universities *per se* was allowed.

The shift in the Higher Education Act, due to the 1976 Amendments, raised many questions on the part of practitioners and theoreticians including the following: What was the relationship between Title I of the original Higher Education Act and its 1976 Amendments? How had the shift in the policy's wording to include support for "the expansion of continuing education in colleges and universities" impacted the continuing education units of public four-year colleges and universities? What had the administrators of such units done because of this policy shift; why; and what were the nature and extent of the consequences?

A literature search indicated that empirical and theoretical-based answers to these questions were not available prior to this study. The objective of this study was to contribute to the understanding on the part of theoreticians and practitioners about the relationship between a shift in national policy affecting continuing higher education and its consequences. A more adequate understanding of that policy shift is important to practitioners, including major continuing education administrators, because they are considered "link pins" in their agencies. They serve as the link between their agencies and other organizations (Knox, 1967). They also serve as the link between the law and the programs, between the abstract and the concrete. In addition, lying between the policy and the program is the administrator's strategy, which is the central link in a chain between the policy and its outcomes (Faure, 1972).

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METHODOLOGY

Using research methodology adapted from public policy analysis, the 1976 shift in Title I Part A (HEA) and its impact were examined. The approach used drew upon theoretical considerations mainly from the fields of public policy analysis, sociology, and continuing education. It included gathering data from oral and written statements from continuing education practitioners about what they had experienced relevant to the shift in public policy and its impact.

This nation-wide research project analyzed the impact of the 1976 shift in Title I Part A of the Higher Education Act and what was implemented under it. The population for this study was derived from analysis of the national records of the Bureau of Higher and Continuing Education in Washington, D.C. Sixty public institutions of higher education were identified in 21 of the continental United States. All institutions included were ones (1) which the shift in Title I Part A was intended to impact and (2) which, according to their respective state plans on record at the Bureau of Higher and Continuing Education, were at that time offering continuing education programs directly resulting from the federal policy shift.

The study was conducted in three phases. Phase One: a pilot study at six public institutions of higher education within a 150-mile radius of the University of Illinois at Urbana-Champaign. Phase Two: a mail questionnaire directed to the "major administrator most knowledgeable about and most responsible for the continuing education offered" by each institution. Phase Three: a telephone probe using elite and specialized interviewing (Dexter, 1970). Ninety percent of the total population, or 54 institutions, provided useable data.

Four major hypotheses were posited for this research project. Sixteen independent variables, three process or outcome variables (depending upon the level of abstraction used in analysis), and six dependent outcome variables were identified to use in testing study hypotheses. Both qualitative and quantitative analyses of data were undertaken. Content analysis and functional analysis were conducted (Merton, 1968; Levy, 1968; Katz and Kahn, 1978). Statistical analysis of relationships between and among variables was also computed. During data analysis, two very distinct types of impact emerged: Anticipatory Impact and Subsequential Impact. Anticipatory Impact included consequences or changes that occurred within the system or for participants under consideration prior to the shift. Subsequential Impact included consequences or changes that occurred within the system or for participants under consideration after and as a result of the shift. These two types of impact influenced findings and affected study hypotheses.

Following the emergence of the two different kinds of impact, the empirical data were reassessed. In effect, what had started in its first phase as an inductive, exploratory study and in its second phase was largely a deductive study had to be dealt with ultimately as a retroductive study. Retroductive methodology (a) provides grounds for the initial proposing, rather than final acceptance, of scientific hypotheses yet (b) is neither deductive nor inductive. The retroductive method allows the shaping of a new conceptual framework within which surprising or apparently unrelated data can be organized into intelligible patterns (Hanson, 1961, in Krimmerman, 1969, pp. 43-45).

CONCEPTUAL AND EMPIRICAL FRAMEWORK

The study drew mainly on theories and generalizations from sociology, from continuing education, and from public policy analysis. From sociology, it was found that the term "community" can mean either (1) a geographic area, a place or (2) a group of individuals "who share some common interest or function" (Gusfield, 1975; NCHEMS, 1977). Under HEA, 1965, the goal of continuing education activities was to contribute educationally to "community problem solving." If the term "community" was interpreted as a place, a geographic area, then issues such as housing, poverty, etc., were considered the "community" problems to be addressed. The goal of the continuing education activities was to provide the educational resources of the institutions of higher education to help solve problems of the geographic area. If the term "community" was interpreted as a "community" of individuals "who share some common interest or function", i.e., women, the aged, inmates, etc., then the problems to be addressed educationally were those of the "community" of individuals. The 1976 Amendments shifted the focus from the first to the second definition of the term "community."

From continuing education, this study used the conceptual models of Apps (1973), Houle (1961), Lawshe (1965), and Farmer, Sheats, and Deshler (1972). By considering these conceptual models concurrently, the main differences between the types of continuing education and community services that could be provided before and after the shift could be determined with precision.

From public policy analysis, a conceptual framework developed by Berman (1978) was adapted which allowed the relationship between the shift in public policy and its impact on continuing education administration and practice to be viewed as a step-like chain of "building blocks." This loosely coupled conceptual framework suggests that "(1) each organization has its own problems, perspectives, and purposes that reflect its particular structure and culture (its setting) and (2) each organization acts more or less autonomously with the overall macro-structure of the sector." The results of such loose coupling are that "the policy passes through and is implemented sequentially by various organizations, so that the output of one implementing organization becomes the input for the other organizations." Berman stated that if social planners and social evaluators of federally initiated social action activities, including social welfare, housing, health and educational programs, had heeded the lessons of the body of organizational analysis, they would have realized that "it is impossible to predict accurately the consequences of policy choices in nonstandard decision situations or to control the process leading from policy to outcome" (1978, p. 163). Pressman and Wildavsky (1973) state that it is "remarkable" when programs are implemented following policy directives. If such programs do "work" Hirschman (1967) would credit "the principle of the Hiding Hand" which calls forth latent problem-solving creativity within those who implement policy and/or transform it into policy outcomes.

To summarize, this study combined a policy analysis conceptual framework which included loose coupling and recognition of the possibility that the principle of the Hiding Hand was in operation with a comprehensive examination of the two definitions of the term "community." Doing so seemed to do greater justice to Title I of the Higher Education Act in its original and amended forms and what was implemented under it than the more limited conceptual perceptions used in prior studies.

FINDINGS

Major study findings resulting from this study included the following:

1. The shift was not a substantive change in legislation. Viewed from the perspective of the policy per se, the shift was a mutation of the original legislation. The shift brought clarification to the original intent of Title I (HEA, 1965).

2. The term "community" as used in the original legislation could be interpreted as having a dual meaning which some who were involved in Title I activities seem to have explicitly or implicitly recognized; others, seemingly did not. Community could be a "geographic place" or a group of individuals "who share some common interest or function." The clarification brought about by the shift made the latter definition more explicit. Thus, institutions which had previously been unaware that they could utilize or were unable to utilize Title I to develop and/or expand their continuing education activities were more able to use Title I as amended in 1976 to develop and/or expand their continuing education activities.

3. In general, the Anticipatory Impact occurred in the larger, older, land-grant institutions; the Subsequential Impact, in the smaller, younger, non-land-grant institutions. In institutions in which Subsequential Impact occurred, almost all the consequences were functional. They increased or maintained the adaptation or adjustment of the units and the participants to their respective settings, thus making for the persistence of the units and the participants in their settings.

4. Major continuing education administrators differed significantly in institutions where Anticipatory Impact occurred when compared with major continuing education administrators in institutions where Subsequential Impact occurred. These differences were in the areas of (a) perception of their respective roles, (b) familiarity with the change(s) brought about by the policy shift, and (c) extent of involvement with policy at an institutional, state, and national level.

5. Major continuing education administrators in public institutions studied tended to rely heavily on their own professional experience in relation to policy. However, in identifying and analyzing national public policy in relation to their own institutions, these administrators ranked reading (literature, journals, papers) as most helpful.

IMPLICATIONS

The following implications have been derived from the major findings of this study for theoreticians, major administrators, and practitioners of continuing education:

1. Persons studying higher continuing education in general or Title I (HEA) specifically can avoid dealing with Title I (HEA) as if it were one phenomenon before 1976 and a very different phenomenon thereafter by reading the original Act and then the 1976 Amendments to it as a clarification rather than a substantive shift in the legislation.

2. Theoreticians and practitioners who tend to assume policy shifts are necessarily detrimental or inconsequential may wish to reevaluate that assumption given the nature of the results of this study. Many institutions in which there

was Anticipatory Impact as well as those in which there was Subsequential Impact benefited from the 1976 shift.

3. Theoreticians who study higher continuing education, policies affecting higher continuing education, and Title I specifically and who have used narrower perspectives than the one used in this study may wish to broaden their conceptual basis for analysis to include both the anticipated impact and the subsequential impact of such policies in order to avoid simplistic or erroneous conclusions which may result from inappropriate or too narrowly focused conceptual bases.

4. Continuing education administrators in institutions of higher education where there has tended to be a relatively low priority placed on public policy analysis on the part of continuing education practitioners and top-level administrators would do well to deliberately place a higher priority on such activity.

5. Practitioners who have previously been relatively limited in the alternative approaches they used to provide continuing education activities to meet the needs of communities of individuals "who share some common interest or function" may want to expand their continuing education and community service activities by using more of the 27 alternative approaches identified in this research. The use of additional approaches such as these may assist in writing proposals for activities which would be funded through Title I (HEA).

6. Theoreticians and practitioners would do well in their efforts to help top-level administrators understand public policies affecting continuing education and shifts in these policies to do so by providing them such information through written executive briefs.

7. To the extent that those practitioners and administrators involved in continuing education and community service join forces in seeking to anticipate needed policy shifts to clarify federal legislation or to substantively change it, higher continuing education can have a greater voice in shaping the public policy affecting its activities and in creating its own destiny.

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FACTORS AFFECTING READINESS FOR PROGRAM CHANGE OF 4-H EXTENSION AGENTS

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INTRODUCTION

The introduction of program changes into an educational organization should be a continuing process throughout the life of the organization. Such changes should not occur simply for the sake of change. The introduction of program change should be for the purpose of better meeting the educational needs of the organization's clientele. Saunders and Maunder (1966) point out the dynamic nature of the educational needs of Extension's clients.

Educational research is continually bringing to practice innovative and improved procedures to aid educators in the more effective completion of their responsibilities. However, there exists a researcher-practitioner gap or time lag in the field of education. As a result of this gap, innovative programs, developed and shown to be worthwhile through research, frequently remain unknown and unused by the practitioner 4-H Extension Agent.

Extension Agents conducting 4-H programs rely, to a great extent, on regional and state level 4-H personnel for information relative to research based program innovations. By virture of their position in the organization and their expertise in 4-H programming, regional and state 4-H personnel have greater access to educational innovations that could result in improved county and city 4-H programs if effectively utilized by local unit 4-H staff.

The adoption or adaption of program innovations by unit 4-H staff is affected by several factors. Search Institute (1978) identified three factors containing eighteen dimensions that affect an agent's readiness for program change when faced with a program change. These factors are: "the variables contributing to an agency's openness and skill in effecting program change"; "the criteria used in evaluating a program"; and "the variables contributing to resistances to program change."

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Knowledge of the factors affecting the Virginia 4-H organization's readiness for program change was needed by the Virginia Polytechnic Institute and State University Extension Division. An understanding of such factors and their relationship to an overall assessment of the 4-H organizational readiness for program change would aid organizational leadership in the development of appropriate strategies prior to the introduction of an innovation. Strategies planned prior to an innovation's introduction would improve the likelihood of use of the innovation by unit 4-H staff.

The specific problem investigated in this study may be stated as follows:

What is the relationship between "the variables contributing to an agency's openness and skill in effecting program change," "the criteria used in evaluating a program," "the variables contributing to resistances to program change," and selected demographic factors of Extension Agents of the Virginia Polytechnic Institute and State University Extension Division having a major responsibility for 4-H programming?

Search Institute (1978) identified nine variables that contribute to an agency's openness and skill in affecting program change, six variables used in evaluating a program, and three variables contributing to resistances to program change. These eighteen dimensions affecting readiness for program change were assessed in this study by modified "Readiness for Program Change Survey Scales" developed by Search Institute (1978).[1] The relationships between each of the factors identified as affecting readiness for program change and selected demographic variables of Virginia Extension Agents having a major responsibility for 4-H programming were studied.

METHODOLOGY

The population frame consisted of 183 county and city Extension Agents of the Virginia Cooperative Extension Service having primary responsibilities for 4-H programming. Agents were alphabetically listed by their appropriate Extension administrative district. A 20 percent sample of agents was drawn for the purpose of field testing the study instrument. Stratification by Administrative district was used since staff sizes and other different population characteristics were present. A census of all agents in the population not involved in the field test was used in the study.

The design for this study was a combination of survey and correlation research. The primary intent was to utilize the data obtained in the survey portion for a study of relationships.

There were three major dependent variables in the study. They were: "the variables contributing to an agency's openness and skill in effecting program change"; "the criteria used in evaluating a program"; and "the variables contributing to resistances to program change." The three dependent variables were measured by a modified version of the "Readiness for Program Change Survey Scales" developed by Search Institute (1978). Ten demographic variables were considered as independent variables. The independent variables were: sex; age; position classification; level of formal education; length of service of 4-H staff; total staff size; district; performance rating; former versus non-former 4-H member; and rural versus urban place of residence of unit 4-H members.

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[1] "Readiness for Program Change Survey Scales" were used with written permission of Dr. Merton P. Strommen, President of Search Institute.

Data were collected by mail questionnaire. The questionnaires were divided into two parts. Part I of the questionnaire consisted of a modified 124 item "Readiness for Program Change Survey Scales" developed by Search Institute (1978). These 18 scales were primarily developed to measure readiness for program change in youth serving organizations such as 4-H. Minor modifications were made in the scales based upon the field test of the instrument.

Part II of the instrument sought data on the ten demographic variables. An individual's score on the 124 items was parceled into the three factors which served as dependent variables for the study. The score on scales one through nine comprised the individual's score on the factor called "the variables contributing to an agency's openness and skill in effecting program change." The scores on scales ten through fourteen comprised the individual's score on the factor, "the criteria used in evaluating a program." The score on scales fifteen through eighteen comprised the individual's score on the factor, "the variables contributing to resistances to program change." Since the eighteen scales varied in the number of items per scale, the raw score responses were converted to standard scores (z scores). Factor scores were then obtained by adding z scores of those scales making up the factor. Three factor scores were obtained. These three factor scores represented the three dependent variables used in the study. Information on the ten demographic variables were used to test hypotheses related to an Extension Agent's level of response on the three factors used to assess readiness for program change. The .05 level of significance was used in testing all hypotheses.

FINDINGS

Major findings were made relative to age of agents and the size of the 4-H staff. The age of Extension Agents was found to be significantly related to two of the three factors related to readiness for program change. Older agents were found to be more open to and skillful in effecting program change.

The age of Extension Agents was also significantly related to the factor, "the variables contributing to resistance to program change." The findings indicated the presence of an inverse relationship between the factor and age. Younger Extension Agents were more resistant to program change than were older agents.

The size of unit 4-H staff that Extension Agents were members of was significantly related to the factors, "the variables contributing to an agency's openness and skill in effecting program change" and "the criteria used in evaluating a program." Agents who were members of larger 4-H staffs were more open to and skillful in effecting program change. Additionally, agents in the larger 4-H staffs used program evaluation criteria most conducive to achieving program change.

CONCLUSIONS

The following conclusions are based on the interpretation of the data from the study:

1. Extension agents who are members of larger local unit 4-H staffs score higher on the combined "Readiness for Program Change" scales measuring "the variables that contribute to an agency's openness and skill in effecting program change." Likewise,older Extension Agents scored higher on this scale. Higher scores on the combined scales suggest that agents in larger 4-H staffs and older 4-H agents:

a. Are more willing to listen to what the local unit youth and parents say about the unit 4-H program and the program needs.

b. Are more sensitive to the detailed long-range planning required to anticipate what is needed to assure the adoption of a new program.

c. Are more willing to share information in ways that will gain the support and cooperation of their constituency.

d. Are more flexible in their approach to programming and are more willing to consider new program options germane to the needs being served.

e. Take more pride in their work and the image the staff has created.

f. Are more likely to seek new ideas relative to unit programming.

g. Are more likely to feel that their supervisors are encouraging, supportive, and affirming in their treatment of personnel.

h. Are more likely to view the atmosphere and policy of their organization as encouraging innovativeness.

i. Are more likely to feel a greater sense of team spirit and satisfaction with the way things are going in the unit.

2. Extension Agents who are members of larger local unit 4-H staffs score higher on the combined "Readiness for Program Change" scales measuring "the criteria used in evaluating a program." Higher scores on the combined scales suggest that Extension Agents in larger local unit 4-H staffs are:

a. More likely to adopt programs that have received a high qualitative evaluation from a professional who is knowledgeable about the program.

b. More likely to adopt new programs that they are convinced will be successful, if tried.

c. More likely to adopt a new program if it will achieve a desired goal.

d. More likely to adopt a new program that has the potential for affecting enthusiasm and organizational growth.

e. More likely to carefully evaluate the potential worth of a new program.

f. More likely to exhibit concern over what is happening to the youth and their parents, and is not happening through current unit youth programs.

3. Younger Extension Agents score higher on the combined "Readiness for Program Change" scales measuring "the variables contributing to resistance to program change." Higher scores by younger agents on the combined scales suggest that:

a. Their decision making is characterized by an attitude of greater resistance to anything new.

b. Tension, power struggles, conflict, and ambiguity of goals are more likely to hinder their innovativeness.

c. Their adoption of a program is more contingent on its likelihood of enhancing their own status or that of their staff.

MAJOR IMPLICATIONS

The findings indicate that agents in the smaller staffs are somewhat limited in their ability to adopt new programs. Smaller staffs simply do not have the necessary human resources, range of specialities, or opportunity of interaction with co-workers that larger staffs have. The findings seem to confirm that "several heads are better than one" when it comes to willingness to adopt an innovative educational program. Gross, Giaquinta and Bernstein (1971) indicated that many educational innovations can't be implemented unless they have the cooperation and support of their co-workers. Similarly, Katz, Levin and Hamilton (1972) pointed out that certain program innovations are intended for and require groups to adopt them.

The implication is clear that mechanisms which would increase the opportunity of smaller 4-H staffs to expand their range of human resources, their specialities, the interaction with more co-workers and their sharing of program information with agents doing similar types of programming would increase their willingness and capability to adopt new programs. The findings give impetus for the entire unit staff to work together on the adoption and implementation of unit 4-H programs. Such working arrangements greatly increases the number of staff involved in sharing information as well as multiplying the expertise available to adopt the program.

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THE WAR METAPHOR IN ADULT BASIC EDUCATION

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One way to understand prominent trends in adult basic education is to examine the metaphors that are used to intepret and communicate experiences in this field. The words that are used are not simply neutral instruments or tools of description but have a profound influence on the way that ideas are shaped and decisions are made. This is particularly true for the use of metaphorical language in education which can provide us with vivid impressions.

The purpose of this study was to test for the presence of a particular metaphor by looking at university textbooks concerned with overviews of adult basic education. These texts proved to be characterized by a powerful metaphorical war image; a war against illiteracy. This study also showed that there are significant implications for the use of the war metaphor in adult basic education.

Metaphor is a way of knowing in which certain qualities of two separate thoughts or subjects are connected to create an instantaneous flash of insight. By linking these two systems of thought, the metaphor functions to organize and direct the conceptualization of the principal subject. Our attention becomes focused on certain features of this subject, because of the way metaphor acts to organize perceptions. We may, however, overlook or ignore other aspects of the subject because certain features do not fit the metaphorical conceptualization.

The way metaphor organizes conceptualization of a principal subject also directs the sorts of inquiries we are able to make regarding that subject. For example, if we think of the school as a 'factory', questions concerning individual growth or moral freedom would not likely be formulated. The use of metaphor to explain a subject imposes limitations on the kinds of questions and answers that are formulated; those which fit the metaphorical framework are those which are conceptualized. Therefore, relying on metaphor to explain and to communicate about a difficult and complex subject can be very problematic because of these limitations.

Another difficulty with relying upon metaphor to explain a subject, besides the limitations imposed on inquiry, is how quickly it becomes interpreted literally. Although a metaphor may not consciously be recognized as such any longer, the organizing and directing influences are still very much in effect on our cognitive and affective understanding of the subject. In this way, these less-than-conscious metaphors can serve to simplify and obscure in our conceptualization of complex subjects rather than to clarify and enlighten.

There has recently been great debate about the philosophical importance of metaphors in educational writing. Theorists have realized that not all metaphors are of equal significance or importance. For this research, the criterion of importance that I have chosen is Isreal Scheffler's, that the written context contain something of the "nature of an invitation" to search for metaphor (Scheffler, 1960; p. 48). Scheffler likens this invitation to theoretical hunches or clues that one is able to derive from the context, and the value lies partially in how well the search for metaphor is rewarded. It is because of this 'invitation to search for the war metaphor in the context of adult basic education that Scheffler's frame of reference is most appropriate and applicable here.

Educational theorists have begun studying the influence and importance of metaphors to determine the impact upon education. Certain education metaphors implicitly used have been identified, such as John Dewey's 'growth' metaphor. Other education metaphors have been explicitly examined such as the use of a

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'factory' metaphor and a 'travel' metaphor as discussed by H. Kliebard. Among these other metaphors, one that has been used in education is a war metaphor. Although the war metaphor has not been examined explicilty in adult basic education until now, it has been identified and studied in other contexts such as communication research on President Gerald Ford's rhetoric concerning the War on Inflation.

METHODOLOGY

This study examines the war metaphor in adult basic education and uses content analysis of a representative sample of three university textbooks to measure both quantitative and qualitative indicators of the ways in which the metaphor is used to encourage a 'war' on illiteracy.

Textbooks were chosen as the focus of study because they provide an important source of information from professionals and policymakers in the field of adult basic education. Textbook study can reveal the way that these professionals conceptualize the field and how students' views are influenced. Although textbooks are not always the single most influential information source nor the most current and up-to-date, texts in adult basic education do provide a groundwork or starting point for students and can influence further research and publications.

The criteria used to select textbooks were the following: 1.) textbooks that presented an overview of adult basic education and of adult illiteracy. This content area was chosen because of the importance that initial definitions of problems and solutions have for future action; 2.) Faculty recommendations of representative texts from this content area; 3.) Availability of texts for use by students, which was determined by presence of books in major campus libraries, number of copies, and listings of texts on course bibliographies, and/or books required for use in course work. Only three books were selected because of the nature of a manual analysis and degree of complexity involved. The three textbooks selected for study were:

C. Jeffries, Illiteracy: A World Problem (N.Y.: F.A Praeger Pub., 1967).

F. Lanning and W. Many (eds.), Basic Education for the Disadvantaged Adult: Theory and Practice (Boston: Houghton-Mifflin Co., 1966).

R.M. Smith, G.F. Aker, and J.R. Kidd (eds.), Handbook of Adult Education (N.Y.: Macmillan Pub Co., Inc., 1970).

The three textbooks were analyzed according to principles of content analysis and data were coded both quantitatively and qualitatively. The quantitative measures were conducted using a numerical rating of the appearance of words and phrases in the three texts which were indicative of a war metaphor. The context unit for the words and phrases was the sentence in which these terms appeared. Only those words or phrases commonly associated with war which appeared in sentences with an education-related subject or attitude subject were recorded. The classification process was set up on a grid form, with the relevant metaphorical indicators listed down the left-hand side, and the names of the authors of the three textbooks across the top. The numbers represent the frequency with which all metaphorical war terms appeared in each book (see Table 1).

Qualitative analysis was possible by presenting representative samples of the war metaphor in sentence contexts. Analyses of these metaphorical war references was done according to the following attitude subjects; 1.) definition of illiteracy and appropriate action; 2.) educators; and 3.) illiterate adults.

TABLE 1: QUANTITATIVE DATA ON WAR METAPHOR IN SELECTED TEXTS

Metaphorical Categories	Quantitative Data - Selected Texts		
	Smith, et al (1970) 20 pgs.	Jeffries, (1967) 115 pgs.	Lanning & Many (1966) 117 pgs.
Attack (ed)	1	4	13
Combat	0	1	1
Struggle	1	3	1
Conquer/Conquest	0	7	0
War	0	1	4
Campaign	2	101	8
Crusade	0	0	2
Fight	0	2	1
Eradicate(ation)	3	35	2
Strategy(ies)	1	5	0
Battle	0	3	2
Revolution(ary)	2	0	9
Drives	0	3	3
Liquidate, Banishment, Blow at, Destroy, Movement against	0	0	5
Army	0	4	1
Recruit(ment)	1	12	12
Target(s)	0	4	0
Victims	0	0	2
Corps	1	1	4
Enemy	0	2	0
Scourge	0	3	0
TOTALS	12	191	70
Metaphorical War references per number of pages	1.6 pages	.6 pages	1.6 pages

Examples from each text were analyzed and compared for metaphorical presentation of these three attitudinal subjects.

There were no difficulties with this coding arrangement for recording the data. The metaphorical references were clearly delineated when analyzed within the context unit of the sentence on the basis of the education-related attitude subjects.

All the texts used in this study displayed the presence of the war metaphor in their discussions concerning adult basic education. All three showed a surprising similarity in the rate of appearance of metaphorical references as well as common themes regarding the attitudinal subjects.

Illiteracy was consistently perceived as an actual evil entity, the 'enemy' and 83% of the total number of metaphorical war references were directed at what should be done. Of the 21 different metaphorical references listed in Table 1, 14 were mentioned with relation to what action should be taken against illiteracy, such as; attack, battle, and eradicate, among others.

Although fewer number of references were made to educators, their militant role regarding illiteracy was consistently supported. Teachers were attitudinal subjects approximately 11% and were referred to as an 'army' in the work of adult education. Teacher involvement was described in terms of their 'recruitment' for work in adult basic education as volunteers, in spite of extensive discussions concerning professionalization of the field.

Adult illiterates were referred to with the least frequency, making up approximately 5% of total metaphorical war references. They were metaphorically conceptualized in passive roles as victims, targets, and people to be made literate. In spite of this perceived passivity, the negative value attached to illiteracy appeared to be transferred to illiterate adults.

Not only were there metaphorical war references regarding these selected attitudinal subjects, but all three textbooks presented the work of the Army and military services in adult basic education as the successful model for basic education in the civilan sphere.

IMPLICATIONS

To examine the implications of the use of the war metaphor in adult basic education, it must be realized that a metaphor does not evolve randomly, but serves some purpose. The use of the war metaphor in adult basic education may have been necessary to draw attention to adult illiteracy and have it recognized as a serious problem. The sense of crisis conveyed by use of the war metaphor can be instrumental as a stimulus to gain widespread voluntary support, and to help secure funding from those outside education. Although the sense of urgency conveyed by the war metaphor is compelling, it also gives adult basic education a temporary emergency quality. Adult education may be seen as an immediate, voluntary reaction to the problem of adult illiteracy rather than a carefully planned action for long range goals.

The war metaphor also provides a simple definition for the complex problem of adult illiteracy, that it is an 'enemy' to be 'conquered'. This diverts attention away from careful inquiry into the nature and causes of adult illiteracy and the relation to society. A negative value judgement may be made here, that adult illiteracy is uniformly regressive and a social detriment, with no regard for the social context in which adult illiterates may live and work. The metaphorical war framework contains certain basic assumptions and value judgements regarding adult illiteracy and its relation to society which are unclear and may even be inaccurate. The complexities of adult undereducation are overlooked because of the influence the war metaphor exerts in conceptualizing the problem.

With regard to solutions to the problem of adult illiteracy, the metaphorical war framework proposes 'eradication' of illiteracy through skills performance as the goal of education. The war metaphor directs conceptualization such that educators and policymakers may assume that 'eradication' of illiteracy through skills performance is the only appropriate goal of adult basic education. Learning that occurs through the process of acquiring skills, or other learning that involves basic values and attitudes, do not fit this 'eradication' goal and may be unrecognized and unevaluated. The use of the war metaphor may impose a definite limitation on the recognition of potentially valuable educational goals and restrict change and development in adult basic education.

The use of the war metaphor in adult basic education has significant implications for educators. The metaphorical war framework provides a very active role for educators; their goal is to do the 'eradicating' of illiteracy. The responsibility for defining and measuring the goal of 'eradicating' illiteracy is assumed to lie with the educator. Because the metaphorical framework focuses attention on the educator's active role, the sheer numbers of illiterate adults that are to be made literate may then take on greater importance than what is specifically learned, or what purpose literacy skills will later serve. Adult students may become objects by which to judge the successfulness of the 'campaign to eradicate' illiteracy and objects by which the educator can measure his/her own teaching progress.

The active role for educators and the 'victim' description of adult illiterates portrays students in a passive, acted-upon role in basic education. The notion that 'victims' of illiteracy could actively try to direct their education may not be interpreted as such by the adult educator, but rather as resistance to authority or unwillingness to learn. Student behavior which does not fit the passive description contained in the metaphorical framework may be ignored by educators or simply misinterpreted.

The use of the war metaphor in adult basic education does not allow for the conceptualization of any sort of active, participatory role for adult students in their education. Those adults who reject this lack of control and passive role may respond by continuing to not learn or by completely dropping out of adult basic education programs that were designed to help them.

Overall, the metaphorical war framework contains certain implicit assumptions that clearly contradict what is currently valued in education. The passive 'victim' role assigned to illiterate adults and the hierarchical process of education contained within the conceptual framework of the war metaphor are in conflict with the education goals of independent thinking and democratic participation in society. By using the war metaphor in adult basic education, educators and policymakers are accepting a conceptual framework which is in contradiction with what they actually value and are trying to achieve. These value conflicts create a stalemate and may serve to make educators less effective in adult basic education.

CONCLUSION

Because metaphors are important conceptual devices which exert power over thinking and behavior, conscious attempts must be made to recognize those metaphors that are influential in education. Currently, important issues in adult basic education are obscured by the influence of the war metaphor. Those details which are stressed by this metaphorical framework and those which are suppressed continue to influence the reader until a new metaphor provides a different framework and a new means of conceptualization.

However, replacing one inadequate metaphor with a new, yet equally inadequate and negative one, is not a solution. Presently, for example, another metaphor appears to be emerging in adult basic education; illiteracy as pathology. The pathology metaphor, although new to adult basic education, has limitations similar to those of the war metaphor; lack of clarity, victimization, and oversimplification of the problem. Little purpose will be served by replacing one negative, inadequate metaphor with another.

Educators and policymakers need to recognize the power of language forms in communication and to take control over the use of language. They can actively work to eliminate the contradictions, limitations, and negative effects imposed by use of the war metaphor. Instead, other metaphors can be sought out which complement and incorporate basic positive educational values, such as the democratic participation of students and the interactive nature of education.

Finally, educators and policymakers cannot rely on time-worn cliches and nonconscious metaphors to explain their views on adult illiteracy and basic education. Instead, they must make a concerted attempt to articulate the processes and the goals of adult basic education in their educational writing.

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A STUDY OF PROFESSIONAL DEVELOPMENT AND SELF-PERCEIVED NEEDS FOR CONTINUING PROFESSIONAL EDUCATION AMONG SELECTED TRAINING SPECIALISTS

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INTRODUCTION

The overall purpose of this study was to identify levels of need for continuing professional development among selected training and development specialists, the relationships of those levels of need to appropriate items in a professional development inventory, and to determine to what extent items in the needs assessment were related to one another.

Increased attention to the education and training of the training specialist is in direct proportion to his/her importance in the society, both in the private and public sectors. Witnesses testifying in June, 1979, at the Senate Committee on Labor and Human Resources spoke to the present and future concerns for adult continuing education that is occupationally related (National Report for Training and Development, 1979, p. 2). Frank Blout of AT&T testified that Bell System training costs in excess of $1 billion a year with about 10,000 different course in current use. Witnesses from the professional development section of the Chase Manhattan Bank testified they spend $900 annually on each of its U.S. employees for eduction and training. When such huge sums of money are being spent on the training function it is no wonder that many within higher eduction are becoming concerned, along with business and industry leaders, about providing trainers with the best possible competencies to meet their challenges.

The study summarizes the need for the study as follows:

1. Nearly one-third of all adult education is occupationally related.
2. Much of the occupationally related adult education is being conducted by the training and development specialist.
3. There is evidence to suggest that employee education will only continue to grow in the future.
4. Roles of the training specialist will expand to include organizational as well as individual development.
5. Institutions of higher education, professional organizations, and the internal or external consultant will be increasingly responsible for programs designed to "train the trainer."

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A review of the literature will reveal that a great many studies have been conducted that have attempted to establish the roles and competencies a trainer should have to operate effectively in his/her role. A recent and thorough study was completed by Pinto and Walker (1978) on behalf of the American Society for Training and Development (ASTD), and its findings were used as a model for the Professional Development Needs Assessment (PDNA) of this study.

METHODOLOGY

ASTD is a national educational society of some 15,000 persons responsible for the training and development of a large segment of the nation's work force. These individuals design and administer training and management development programs in all types of business and industrial settings, as well as in government and service organizations. The target population of this study consisted of Chicago area members of the Illinois Training and Development Association (ITDA) who were also national members of ASTD. A simple randomized design was used to choose the sample of respondents from the population, a total of 224 subjects.

The survey questionnaire was developed with the assistance of a panel of experts, including members of ASTD. Special efforts were made to insure that the questionnaire was brief, understandable, and designed for ease of response. The questionnaire consisted of two parts, printed on two pages. The first part, the Professional Development Inventory (PDI), provided a trainer profile by supplying information on age, sex, number of years in training, highest level of education, degree majors, hours spent per week in professional development, areas of access to professional development, and percentage of time spent in each of the roles of learning specialist, administrator, and consultant. The second part, the Professional Development Needs Assessment (PDNA), consisted of 14 items. These items were those identified by the Pinto and Walker study as the major competencies of trainers. Subjects were asked to indicate their level of need for continuing professional development on a six-point rating scale, 5 high need to 0 no need.

A pilot study preceded the major study. Subjects were all members of the Central Illinois Chapter of ASTD, Springfield, Illinois. Of the 96 questionnaires mailed, the response rate was 56%. One change was made in the PDI as a result of the pilot study. In addition, using Cronbach's alpha, reliability for the PDNA was computed to be .739 from pilot study data.

Collection of data for the major study was accomplished during February and March, 1980. The final response rate was 66%, higher than is often expected (Kerlinger, 1973) in mail surveys.

Analysis of the data was performed on an IBM 360-370, utilizing the Statistical Package for the the Social Sciences (SPSS). In order to investigate the research questions and purposes, the following null hypotheses were proposed:

H_1: There are no significant differences among the perceived importance of each item on the PDNA.

H_2: There are no significant differences within the distribution of responses for each item on the PDI.

H_3: There are no significant correlations between perceived importance of items in the PDNA and the folling items from the PDI: age, years in training, level of education, hours per week spent in professional development, and percentage of time spent as learning specialist, administraotr, and/or consultant.

H_4: There are no significant differences between perceived importance of averages in the PDNA by item, and the following items from the PDI: sex, and categories of professional development.

In summary, hypothesis one assumes no significant relationship among items in the PDNA. In addition, a factor analysis determined if there were clusters of related needs within the PDNA. The eight items in the PDI are the independent variables. Hypotheses two, three, and four assume no significant relationships with PDI items (H_2), or between items in the PDI and the PDNA (H_3, H_4). Hypothesis one was tested using the Friedman two-way analysis of variance by ranks. Hypothesis two was tested was tested using the Chi-Square Goodness of Fit to determine if observed responses on the PDI were significantly different than predicted responses. Hypothesis three was tested using Kendall's tau, rank order correlation coefficient between selected PDI items and each item in the PDNA. Hypothesis four was tested using the Kruskal-Wallis one-way analysis of variance by ranks (Siegel, 1956). All statistical prcedures were selected as appropriate to use with nonparametric data.

FINDINGS OF THE STUDY

Mean ranks for items in the PDNA were interpreted as a rank order of levels of need for continuing professional development, by competency. The rank order of need is as follows: professional self-development; training research; group and organizational development; manage training and development function; needs analysis and diagnosis; job-related training; individual development, planning and counseling; program design and development; manage relationships with managers; determining training procedures; manage internal resources; developing material resources; manage external resources; and conduct classroom training.

A second purpose was to determine if there were significant differences among the perceived importance of items on the PDNA (hypothesis one). Null hypothesis one was rejected, as differences between the mean ranks of items were significant at the .0001 level.

In addition, the analysis of the PDI provided a profile of the "typical" trainer. It revealed that the average trainer in the study was between 33 and 44 years of age, was male, had been in the profession not more than 10 years, held a bachelor's degree plus graduate hours, spends one to five hours a week in professional development, most often chooses his/her professional organization for professional development, and works in the role of the learning specialist between only 10 and 30% of the time. Almost 60% of the trainers spend 20 to 50% of their time in the administrator role, and approximately 55% spend between 20 and 40% of their time as consultants within their organizations. The study also revealed that of those trainers with the bachelor's degree (55.2%), 34% are in liberal arts, and 15% in education and business respecitvely. Of those with the master's degree (35.4%) education degrees are most prominent, 31,5%, followed by liberal arts with 23.3%, and business with 16.4%.

Analysis of the PDI in respect to the differences between predicted and observed distribtuions of responses showed highly significant differences ($\underline{p} < .001$), thus hypothesis two was rejected. The a priori prediction was that there would be an equal number of observations in each category.

Null hypotheses three and four were retained, as there were not significant correlations between items from the PDI and the PDNA. A factor analysis of the 14 items in the PDNA revealed that there were two strong factors and one weaker within the items. The factor loadings expressed the correlation between a particular item and a factor.

CONCLUSIONS AND IMPLICATIONS

The results of the study reveal a moderate level of perceived need for continuing professional education among the selected training specialists. Their overall mean score was 2.367 against a median on the respondent scale of 2.5. As the situation in American industry is further complicated by technological advances, organizational complexity, and the need for greater productivity, we can expect to see an increased need for professional development among trainers (Bass and Vaughn, 1966).

An examination of the rank order of needs reveals professional self-development as first, and a kind of generic umbrealla describing all the other items. However, the items ranked second through fifth are revealing in terms of the training specialist. The need for additional skills in research, group and organizational development, managing the training and development function, and needs analysis and diagnosis were ranked second through fifth. Most of these skills can be grouped under the consultant and administrator roles of the trainer, with an emphasis on organizational needs, versus the more traditional trainer role of learning specialist. These findings are in agreement with Knowles' (1973) contention that future trainers will be more and more involved with the total needs of the organization. That is in contrast with the finding that only 3.4% of the trainers held degrees in organizational development.

Since the study revealed that there were significant levels of difference between the levels of need to items in the PDNA, we may conclude that respondents did not demonstrate equal levels of need for continuing professional development in the various competencies. This would seem to indicate that those who provide professional development must be able and willing to use extensive needs assessment when dealing with trainers, and that resulting programs should be individualized to some extent.

The trainer profiles revealed a relatively young group of professionals with a higher number of women than is reflected in the business community at large. They belong to their professional organizations and look to those organizations for professional development, ranking the univiersity or college as fourth out of six possible choices for professional development. As Houle (1976) has urged, those who want to enlarge and strengthen the field of adult education must place winning the attention of the training community as a major aim. It would seem there is much work to be done by the universities in providing professional development for the trainers.

Even though the profile showed that nearly one third of the master's educated trainers are presently graduating from colleges of education, this may not be the case in the future. Future trainers may systematically seek out those institutions and programs which best address their needs in organizational and human resources development. One can anticipate the master's degree for the corporate or government trainer as a "growth potential" for responsive institutions. A program with a multi-disciplinary base, sharing course work in the colleges of education, business, and liberal arts,might best suit the trainer.

Since the study showed few significant relationships between items in the PDNA and the PDI, those who would program for the trainer should be careful with any assumptions about needs based on age, sex, etc. These results again underline the diverse quality of the training community, and the difficulty of predicting need based on any of the descriptors used in the PDI.

From a theory building and supporting point of view, the study provided substantial support for the Nadler model (1962, 1970) of the training and development specialist which asserts that the training roles are best described as those of learning specialist, administrator, and consultant. A factor analysis of the PDNA items (14) showed that a cluster of items emerged under each of three factors, suggesting an underlying group of constructs within the PDNA. It should be noted that PDNA facators one and two were clearly made-up of items appropriate to the learning specialist and administrator, where factor three has only two items and is clearly not exhaustive, but descriptive, of the functions of the consultant.

In summary, the present study revealed that the perceived level of need for continuing professional education was moderate, but very near the median in those of the 14 PDNA items which factored as administrator and consultant functions. It also pointed out the diverse characteristics of the training specialists, making it seem important to design quality needs assessment and diagnostic techniques when addressing this group.

Since the roles of learning specialist, administrator, and consultant still seem useful in describing trainer competencies, they may be useful to universities in conceptualizing a multidisciplinary approach to graduate programs for trainers, or to professional organizations and others who are faced with the important task of training the trainer.

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THE FEDERAL MINIMUM ELEMENTS OF A COMMUNITY EDUCATION PROGRAM AND THEIR RELATIONSHIP TO COMMUNITY EDUCATION ACTIVITIES

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INTRODUCTION: PURPOSE

One of the purposes of community education programs as described in the Community Schools and Comprehensive Community Education Act of 1978, Title VIII of the Elementary and Secondary Education Act of 1965, as amended by the Education Amendments of 1978 (P.L. 95-561), is to develop the "capacity within States to support the continued growth of community education " (Federal Register, April, 1980, p. 22702). New York State considered that a first step in providing this support was to identify what elements of community education were practiced in the State and the extent to which each element was practiced.

In Section 802, Title IX of the Act (Federal Register, p. 22703), eight minimum elements of a community education program are described. Although some of them have two or more parts, they state that the program shall have the following:

1. Substantial involvement by the local educational agency in administrating and operating the program
2. Service to an identified community
3. A community center
4. A broad scope of services; reinforcement of the regular instructional program
5. Procedures for identifying community needs
6. The use of community resources and the cooperation of public and private agencies
7. Service to a broad scope of community groups
8. Community involvement in advice and governance

These eight minimum elements have their origins in definitions and descriptions found in the literature of community education (See LeTarte and Minzey, 1972; Seay, 1974; Decker, 1977). The elements range widely in their potential impact on a community. They concern such innocuous things as a community center, the physical location of the community education program, as well as the more highly charged concern of community involvement in governance. No survey of the school districts in New York State had been undertaken to determine the extent to which these elements are practiced.

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The purpose, then, of this paper is to present a preliminary study which describes the extent to which 580 school districts in New York State practice the minimum elements of a community education program as defined in the Community Schools and Comprehensive Community Education Act. The study also describes the relationships between some of these minimum elements and various community education activities.

METHODOLOGY

From the literature, from practitioners, and from experts a screening survey was developed which asked the following three questions:

1. Are the school buildings in your district used by agencies, organizations, or groups for programs other than the regular or extracurricular K-12 program or the district's own adult education or continuing education programs?

2. Does your district plan or coordinate programs with these various community agencies such as establishing a calendar of activities, sharing resources, exchanging ideas, or implementing joint programs?

3. Is the planning, cooperation, or coordination between your district and the various community agencies accomplished through an officially mandated advisory group composed of representatives of the school district, various community agencies, and private citizens?

Each question suggests a greater degree of or greater commitment of community education activities. The first question actually suggests potential for community education activities. The second question suggests some community education activities with perhaps some minimal program. The third question suggests a broad scope of community education activities and a clearly defined community education program.

The screening survey was sent to the superintendents of each of the 712 regular, operating school districts in New York State. A total of 580 or about 81 percent of the superintendents responded. A survey instrument was developed for a follow-up telephone interview. It analyzed the three questions of the initial screening survey into 16 multi-part questions, each question having one to ten sub-questions for a total of 136 sub-questions. One or a combination of two or three multi-part questions operationally described each of the eight minimum elements of a community education program stated in the Community Education Act.

The 380 school districts which responded positively to the first two questions or to all three questions were analyzed with respect to these multi-part questions. The 380 respondants were dichotomized by a positive-negative or high-low response to each of the 16 multi-part questions. The number of respondants were then compared with respect to each of the 136 sub-questions by means of a chi square test.

FINDINGS

Table 1 below describes the responses to the initial three questions survey.

Table 1

Responses to Community Education Screening Survey

Kind of Response	Number	Percent
No positive response	100	17.2
Positive response to Question 1	120	20.7
Positive response to Questions 1 and 2	308	53.1
Positive response to Questions 1, 2 & 3	52	9.0

The responses indicate that 120 (17 percent) of school districts in New York State have the potential for community education activities or a community education program; they indicate that 308 (43 percent) of the school districts have some community education activities or some minimum elements of a community education program; they also indicate that 52 (7 percent) of the school districts have a broad scope of community education activities with a clearly established community education program.

Preliminary analysis of 4 of the 16 multi-part questions indicates significance in several of the 136 sub-questions.

School Involvement

The presence of a full-time director or coordinator versus a part-time director or coordinator was used to describe substantial involvement of a school in administering and operating the program. About 10 percent of the districts indicated that they had full-time directors of a community education program. Significant differences were present in 7 sub-questions. They concerned (1) the use of the district building(s) by business or industrial agencies, (2) the districts' coordination or planning with social services agencies, (3) the existence of centralized staff development opportunities, multi-service centers, and an ombudsman, (4) and the districts' coordination with other agencies for parent programs and youth activities.

Community Center

Presence or absence of a community center was used to determine whether a public facility was being used as a community center. About 72 percent of the districts indicated that they had a community center. Of all the public facilities mentioned, a building in the school district was indicated most often (50 percent) as serving as a community center. Significant differences were present in 14 sub-questions. They concerned (1) the use of the districts' building(s) by social service agencies, (2) the existence of centralized record keeping, (3) the providing of human resources by other educational agencies, (4) the providing by the district of space or facilities for parent programs, senior citizen programs, volunteer activities, social programs, pre-school programs, youth activities, social service activities, and recreational activities, (5) the leadership role of the district in youth activities and recreational activities, (6) the existence of community education activities after school, (7) the existence of programs for senior citizens.

Needs Assessment

The regular assessment or non-assessment of the needs, interests, and concerns of the community was used to determine whether the program includes "systematic and effective procedures for identifying and documenting on a continuing basis the needs, interests, and concerns of the community served. . ." Mailed questionnaires were the means most often chosen (47 percent) by the advisory council to assess community needs and interests. Significant differences were present in 3 sub-questions which concerned (1) the districts' coordination of pre-school programs with other community agencies, (2) the mandating of the advisory council by the Board of Education, and (3) the presence of citizens at large on the advisory council.

Advisory Group

The presence or absence of a mandated advisory council was used to determine whether the program provided for "active and continuous involvement on an advisory basis of individuals, institutions, and groups representative of the community. . ." About 14 percent of the districts indicated that they had mandated advisory councils. Significant differences were present in 14 sub-questions which concerned (1) the districts' planning or coordination with government agencies, business or industrial agencies, and social service agencies, (2) the existence of centralized staff development and joint programming with other agencies, (3) the providing of physical resources for social service agencies and voluntary organizations, (4) leadership role of the district in pre-school programs, youth activities, social service activities, and recreational activities, (5) and the providing by the district of pre-school programs, adult education programs, programs for senior citizens, functionally illiterate individuals, limited English speaking individuals, and handicapped individuals.

DISCUSSION

Preliminary analysis of the 4 multi-part questions has yielded various relationships among the 136 sub-questions. It is interesting to note that some of the minimum elements may be present without other elements. For example, while one might expect a significant relationship to exist between the presence of a full-time director and various kinds of community education programming, the data does not support this expectation. On the other side significant relationships exist that are not easily explained. For example, a significant relationship exists between the existence of a mandated advisory council and programs for functionally illiterate and limited English speaking individuals.

School Involvement

Concerning the 12 kinds of planning or coordination a school district might undertake with community agencies, the three least often undertaken were centralized staff development opportunities (20 percent), multi-service centers (27 percent), and the existence of an ombudsman (10 percent). A significant relationship exists between the presence of a full-time director of community education activities and these three kinds of coordination. The presence of a full-time director may enable a school district to undertake these more involved kinds of coordination.

Community Center

It is interesting to note that a school building is the public facility most often used as a community center (71 percent). A significant relationship exists between having a community center and the space and resources that it provides to most of the community activities indicated on the survey. While it might be expected that a community center can provide space and facilities for various community activities, this, in fact, seems to be the practice among school districts in New York State.

Needs Assessment

Few significant relationships exist between an advisory council's assessing the needs and interests of the community and the scope of community education activities. It is difficult to assess the reasons for the limited, significant relationships. One possible reason may be the wide variation of needs and interests which are present in the many school districts of New York State. A needs assessment of a community, then, may tend to generate more or less activities depending on the identified needs and available resources of a particular community. A significant relationship exists between assessing needs by an advisory council and the advisory council's being mandated by a local board of education and between assessing needs by an advisory council and the presesce of citizens at large on the advisory council. It may be said that a board of education's mandating an advisory council and citizen involvement on an advisory council tend to encourage the undertaking of community needs assessments.

Advisory Group

The existence of an advisory council has a significant relationship to a school district's leadership role in many community education activities and a significant relationship to the scope of community education programming. Programs for limited English speaking individuals (42 percent) and functionally illiterate individuals (36 percent) were least undertaken by school districts. The presence of a mandated advisory council may encourage school districts to provide programs for these two populations. Reasons for such relationships are not clear. Perhaps, representatives on advisory councils are more aware of the needs of functionally illiterate and limited English speaking individuals.

CONCLUSION

If the 16 multi-part questions adequately describe the minimum elements, preliminary analyses of 4 of these questions indicate that a variety of relationships exist between these minimum elements of a community education program and several community education activities. It is necessary, of course, to analyze the remaining multi-part questions to obtain a complete understanding of the overall relationship between the minimum elements and the various community education activities.

In terms of effective practices, individual communities may seek to develop specific elements of a community education program to satisfy the needs of their community and provide the best program for its citizens.

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SYMPOSIUM

ALTERNATIVE APPROACHES TO RESEARCH ON PROFESSIONAL PERFORMANCE AND RELATED LEARNING ACTIVITIES

Chaired By:

James A. Farmer, Jr.
University of Illinois at Urbana-Champaign*

This symposium focuses on alternative approaches to research on professional performance and related learning activities.

According to Kerlinger (Foundations of Behavioral Research, 1973), an independent variable is a presumed cause and the dependent variable is the presumed effect. An independent variable is antecedent; a dependent variable, the consequent. Kerlinger has alerted researchers to the possibility of a variable being an independent variable in one study and a dependent one in another. This dual role can even be given to a variable in the same study. Rather than being a distinction between different kinds of variables, the independent and dependent variable classification actually is a classification of uses of variables.

In research relevant to adult and continuing education, learning activities have frequently been considered independent variables; performance, a dependent variable. Research using professional performance as an independent variable and adult learning activities as dependent variables as well as research giving both of these variables dual roles in the same study can yield findings that complement or even correct findings from the approach more frequently used.

As described in the following background papers, some of the authors have recently conducted research using adult learning activities as independent variables and professional performance as a dependent variable. Some have considered professional performance as an independent variable and related learning activities as dependent variables. Moreover, some of the authors used these variables as both independent and dependent variables in their studies.

Each of the following background papers describes and explains the use of adult learning activities and professional performance as variables in the research conducted by its author. Differences in the main approaches used and the types of findings resulting from their use are highlighted in those papers.

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MEASURING IMPROVEMENT IN PROFESSIONAL PRACTICES RESULTING FROM CONTINUING PROFESSIONAL EDUCATION

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(1) The recent proliferation of educational programs aimed at professional clientele; (2) rising concerns about cost effectiveness; and (3) the assumption that participation results in improved professional performance together pressure educators to provide sound evidence that their programs have a positive impact on individual learners and the society which they, as professionals, serve. Reported impact evaluations most frequently have used the specific program as the independent variable and have examined its results as dependent variables. Houle identifies four frameworks commonly used to assess impact: (1) extent of participation; (2) extent of learner satisfaction; (3) accomplishment of a learning plan; and (4) measurement of performance (1980, pp. 238-252). These measurements are usually taken at the conclusion of the program or shortly thereafter, and evaluations are usually based on self-report data provided by participants. These approaches ignore the findings of researchers of the change process that adoption of innovations is a lengthy and tenuous process. They also ignore the findings that indicate that individuals' self-assessment of their knowledge, skills, and attitudes frequently differs from the assessment made by independent observers.

The study conducted by this investigator utilized all four evaluation bases identified by Houle in a non-equivalent control group design. Initial posttest measurement of knowledge attainment and improved performance were made approximately one year after a simulation workshop and were correlated with measures of participant satisfaction and predicted use of the techniques taught; a follow-up study was conducted two years after the workshop. Verification of all self-reported practices through observable administrative artifacts increased the validity of the data.

Positive participant attitude reported at the conclusion of the workship did not significantly correlate with the significant positive gains in knowledge or with gains in the use of techniques which were observed one year later. Two years latter additional significant gains were observed in knowledge but the use of techniques declined significantly. In terms of the outcomes identified by the provider, this workshop was not effective over the long run. Nonetheless, participants reported satisfaction with the workshop and a belief that their skills had improved as a result of their participation. This finding raises the possibility that the provider's criteria were either not inclusive or were irrelevant to the needs of the participants. Furthermore, it is evident that contradictory or even erroneous conclusions about programs effectiveness could be reached, depending on which bases were used and when the measurements were taken.

Perhaps the answer to the dilemma lies, as Houle suggests, in the development of new measures of accomplishment yet to be discovered by researchers (1980, p. 315). In the meantime, it seems apparent that, in situations in which CPE is viewed as the independent variable and changed professional practices as

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the dependent variable, evaluators and researchers would be wise to broaden performance criteria. It would also be wise for them to use as many data bases as is feasible and to extend their inquiry as far into time as their resources permit.

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Houle, C. O. Continuing Learning in the Professions. San Francisco: Jossey-Bass Publishers, Inc., 1980.

KNOWLEDGE UTILIZATION BY PRACTICING SOCIAL WORKERS: A NATURALISTIC APPROACH

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Most writers and researchers in the continuing professional education of social workers assume that continuing education programs are independent variables and that change in professional practice is the resulting or dependent variable.

Research presently in progress uses participant-observation in social work agencies in order: (1) to develop a naturalistic account of the factors involved in the utilization of knowledge by practicing social workers; and (2) to comprehend from the practitioner's viewpoint knowledge and its use by practitioners for professional performance.

Because of the naturalistic approach, directionality and association between variables is not assumed. This permits an examination of differences between this approach and those based on quantitative or experimental methodologies in which some specific variables and directions are stated.

Particular attention has been given to: (1) the notions of variables and directionality; (2) interaction between problem definition, theory and method; (3) the influence of the approach on findings; and (4) research into professional performance as it relates to knowledge and learning.

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A STUDY OF CHANGES IN ADULT BASIC EDUCATION TEACHING PERFORMANCE, EFFECTS ON STUDENTS AND ON THEIR SOCIETY, AND RELATION TEACHER-LEARNING ACTIVITIES

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The objective of this study was to contribute to the understanding of the relationship between changes in teaching performance of adult basic education teachers, effects of those changes on adult basic education students and on their society, and related teacher-learning activities.

Changes in teaching performance and related learning activities were treated both as independent and dependent variables in the study. For example, a change in teaching was treated as an independent variable when the effects of that change were the focus of investigation; that same change in teaching was treated as a dependent variable when related learning activities were the focus of the investigation.

Impact studies typically focus first on learning activities and then on the impact of changes brought about as a result of the learning that took place. In contrast, the present study focused first on changes in teaching performance and the effects of those changes and only then on learning activities associated with these changes. Data were obtained through interviews with six adult basic education teachers, each teacher's supervising administrator, and two of each teacher's current or recent students.

A distinction was made between those learning activities undertaken with the intent to learn something relevant to a specified change in teaching (purposeful learning activities) and those learning activities undertaken with other intent but resulting in learning relevant to a specified change (incidental learning activities). Overall, 48 percent of the learning activities were purposeful; 52 percent were incidental. Considerable differences were found between: (1) characteristics of purposeful and incidental learning activities and (2) teacher and administrator perceptions of learning activities related a specific change.

The research approach used in this study provided a rich source of data about user perceptions of continuing education activities and resources. It provided one means of furthering understanding under what conditions, how, and why practitioners find continuing education activities to be of practical value relevant to important changes in their teaching performance.

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REAL-LIFE PROFESSIONAL PROBLEM-SOLVING EFFORTS OF ENGINEERS AND RELATED LEARNING ACTIVITIES

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In this study, specific, real-life professional problem-solving efforts of practicing engineers are considered to be the main independent variable and related learning activities are the main dependent variable. Previous studies have asked practicing professionals to first think about some learning activity they participated in and then to indicate whether or not it helped them in some professional way. Results of a study across five professions by the Office for the Study of Continuing Professional Education at the University of Illinois showed that persons had difficulty focusing their responses when this approach was used. Therefore, the 40 engineers interviewed for this present study were first asked to think about a specific professional engineering problem recently encountered and were then asked detailed questions about the learning activities they pursued to help them deal with that problem.

This study controlled for level of problem. After being given criteria and examples, interviewees were asked to think of one well-defined, recent professional problem and were then asked specific questions about the learning activities related to that problem. This process was repeated with a specific ill-defined professional problem as focal point. When this approach was used, interviewees could readily give rich responses that helped elucidate the relationship between specific well-defined and ill-defined professional problems and related learning activities.

Different patterns were found in the learning activities chosen for well-defined as opposed to ill-defined problems, e.g., reading was cited far more frequently as a learning activity related to the solving of well-defined problems; consulting colleagues, with the solving of ill-defined problems. Formal credit courses were rarely cited among the learning activities related to either type of problem.

Interviews lasting approximately two hours each were conducted with 40 engineers at three sites: a branch of the Department of Defense; a large civil engineering consulting firm; a large, well-known manufacturer of heavy equipment. Persons in each of these sites were chosen by their companies for their representativeness.

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REAL-LIFE PROBLEM-SOLVING EFFORTS OF PROFESSIONALS AND RELATED LEARNING ACTIVITIES

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The main objective of this study was to contribute to the understanding of theoreticians and practitioners of the relationship between professional problem-solving efforts and related learning activities. In this study, professional performance and related learning activities were each given a dual role, being dealt with both as dependent and independent variables.

Data were obtained from 61 professionals in several fields, including medicine, engineering, aviation, educational administration, and continuing education administration. Methods used in obtaining data included observation of real-life problem-solving efforts and in-depth interviews about those efforts and related learning activities. The problems addressed ranged from what for the problem solvers were well-defined problems to ones that were relatively ill-defined. It was concluded from this research that the learning activities related to efforts to solve real-life well-defined problems were considerably different from those related to efforts to solve ill-defined problems. Further, professional problem-solving efforts and realted learning activities frequently interacted, rather than one consistently functioning as an independent variable and the other consistently as a dependent variable. Even within single professional problem-solving efforts and related learning activities there tended to be considerable variability of directionality and intentionality (i.e., the direction in which these variables related to each other and who -- the professionals, providers of continuing professional education, and others -- intended what and to what extent). This finding seems similar to one of Piaget's findings from observing and questioning older children engaged in practical tasks. Piaget stated (Logic and Psychology, 1953, p. 32): "This study of the child's actions brought me to the conception of logic based on operations -- an operation being considered as internalized action which becomes reversible, that is to say, can be carried out in both directions, and links up with others."

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SYMPOSIUM

REASONS FOR PARTICIPATION IN CONTINUING PROFESSIONAL EDUCATION
COMPARATIVE ANALYSES OF FIVE PROFESSIONAL GROUPS

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During the past six years, research on professionals' reasons for participation in continuing education activities has been conducted at the Office for the Study of Continuing Professional Education at the University of Illinois at Urbana-Champaign. Early studies contributed to the development and refinement of the central instrument used in this program of research, the Participation Reasons Scale (PRS) (Grotelueschen, Harnisch and Kenny, 1979; Grotelueschen, Kenny and Harnisch, 1980). More recently, as the result of additional data gathering efforts with increasingly stable instrumentation, it has been possible to pursue comparative analyses of professionals' reasons for participation in continuing education activities.

This symposium presents a range of comparative analyses of the reasons for participation of members of five professional groups: veterinarians, judges, physicians, business professionals, and nurses.

THE PARTICIPATION REASONS SCALE

The PRS is presently a 30 item instrument designed to assess professionals' reasons for participation in continuing education activities. It is focused primarily on reasons for participation which are relevant to professionals engaged in practice-related learning activities. It is also focused primarily on reasons which suggest programmatic responses on the part of continuing professional educators. Responses are rated on a 7 point Likert-type scale.

As the result of repeated data gathering efforts, factor analyses, and instrument revisions, the present form of the PRS is constituted of reasons for participation statements which can be clustered into five groups. Due to slight modifications of the PRS in individual data gathering efforts, only 26 of the set of 30 items on the present form of the PRS were common to all five studies used in this set of analyses. These are listed below.

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Cluster I: Professional Improvement and Development

To further match my knowledge or skills with the demands of my work situation
To maintain my current abilities
To develop new professional knowledge and skills
To help keep me abreast of new developments in my field
To help me be more competent in my current work
To develop the proficiencies necessary to maintain quality performance

Cluster II: Professional Commitment

To maintain my identity with my profession
To review my commitment to my profession
To help me obtain leadership capabilities for my profession
To sharpen my perspective of my professional role or practice
To assess the directions in which my profession is headed
To consider the limitations of my professional role
To reflect on the value of my professional responsibilities

Cluster III: Personal Benefit and Job Security

To help me insure future productivity in my professional role
To increase the likelihood for me to advance in my present work position
To enhance the security of my present work position

Cluster IV: Professional Service

To enable me to better meet client expectations
To better accomodate thé needs of my clients
To increase my proficiency with clients
To help me increase the likelihood that clients are better served
To improve my professional service to clients
To maintain the quality of my professional service

Cluster V: Collegial Learning and Interaction

To mutually exchange thoughts with other professionals
To relate my ideas to those of my professional peers
To learn from the interaction with other professionals
To be challenged by the thinking of my professional colleagues

SAMPLES

The data used in these analyses were gathered during this past year. The data from veterinarians were gathered from a random statewide sample (n=219) of veterinarians in Illinois. The data from judges were collected from the total population of judges (n=400) in Michigan. The data from physicians were collected from practicing physicians (n=242) at five hospitals in the metropolitan Chicago area. The data on business professionals were collected from the total population (n=136) of participants at the Executive Development Programs sponsored by the Executive Development Center of the College of Commerce and Business Administration at the University of Illinois [illegible] Urbana-Champaign. And the data collected on nurses were from a statewide random sample of nurses (n=[illegible]) in the State of North Carolina.

Due to limitations of space, these sample sizes will not be incorporated into subsequent tables. The reader may assume that the samples remain constant.

ANALYSES

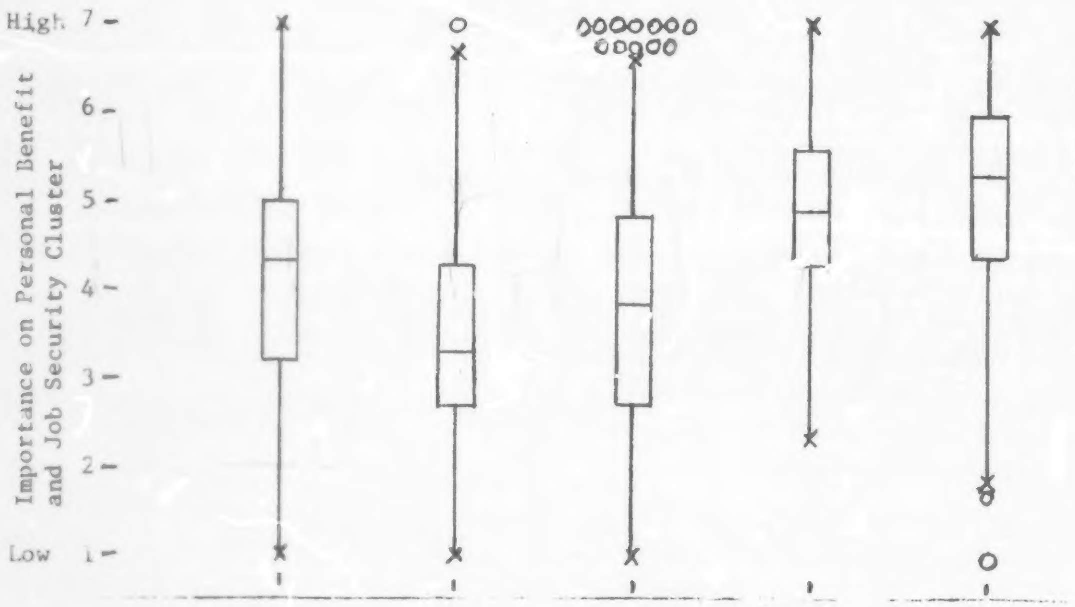
Four levels of analysis were conducted. The remainder of this statement identifies each of these levels of analysis. Tables and discussion of illustrative materials prepared for the symposium presentations are provided.

Analysis No. 1

The first question which is addressed concerns the differences which exist among the professional groups, as well as within the professional groups, on the clusters of reasons for participation in continuing professional education identified above in Figure 1. All five professional groups are analyzed. These analyses are presented visually through the use of box and whisker plots (Tukey, 1977).

An example of this method of visual representation is provided in Figure 1 below. The area within the rectangular boxes represents the midspread of the scores with the center line being the median and the upper and lower boundaries being the 75% and the 25% scores, respectively. The maximum and minimum scores in each distribution are represented by the X's except in the case of extreme outliers which are represented by the o's beyond the X's, where each outlier is represented by an individual o. Figure 1 shows that on cluster III: Personal Benefit and Job Security, both the business executives and the nurses are relatively high, while the judges are low and the veterinarians and physicians are more moderately located.

Figure 1. A Box and Whisker Plot Comparison of Responses from Five Professional Groups on Personal Benefit and Job Security



Group	Veterinarians	Judges	Physicians	Business Professionals	Nurses
$\overline{X}$	4.40	3.63	3.96	5.02	5.32
SD	1.28	1.19	1.51	1.05	1.07

Professional Group

Analysis No. 2

The second question which is addressed concerns the personal and professional characteristics of responderts in each of the five professional groups and considers the extent to which these characteristics are associated with the five reason clusters. Estimates of cluster reliability (coefficient alpha) for each of the five professional groups are shown in Table 1. The results of the correlational analysis of the age of the respondents with the cluster scale scores are presented in Table 2.

Table 1

Estimates of Cluster Reliability (Coefficient Alpha) For The Five Professional Groups

Cluster Scale	Coefficient Alpha				
	Veterinarians	Judges	Physicians	Business Profs.	Nurses
I. Professional Improvement and Development	.85	.78	.90	.76	.82
II. Professional Commitment	.86	.89	.90	.82	.87
III. Personal Benefit and Job Security	.68	.55	.75	.57	.59
IV. Professional Service	.92	.84	.93	.93	.88
V. Colleagial Learning and Interaction	.80	.83	.80	.73	.80

Table 2

Correlation Matrix Of Age with Cluster Scales For Five Professional Groups

Cluster Scale	Professional Group				
	Veterinarians	Judges	Physicians	Business Profs.	Nurses
I. Professional Improvement and Development	-.19	.00	-.07	.08	.05
II. Professional Commitment	.02	.02	-.10	.03	.12
III. Personal Benefit and Job Security	-.24	-.22	-.09	-.13	.07
IV. Professional Service	-.26	.00	.00	.10	.03
V. Colleagial Learning and Interaction	-.11	.02	-.10	.00	.10

Analysis No. 3

The third analysis addresses the question of the extent to which different clusters of reasons for participation in continuing professional education can be explained by professional group and age group membership. The five professional groups were found to be more similar in their ratings of some reason clusters than for others. The range of mean ratings was smallest for Colleagial Learning and Interaction (.96) and Professional Improvement and Development (.89) and largest for Personal Benefit and Job Security (1.69) and Professional Service (2.10). Each professional group also varied in its mean rating of the five reason clusters. The range of mean ratings was smallest for nurses (1.10) and business professionals (1.27) and largest for the judges (2.49).

Table 3 shows that age and professional group have multiple correlations with the five reason clusters ranging from .29 for Colleagial Learning and Interaction to .53 for Personal Benefit and Job Security. Most of the extent of these correlations is accounted for by the professional group membership. The data in this table also show that there are significant differences among professional groups for each reason cluster. Significant age differences also exist for Professional Commitment and for Personal Benefit and Job Security.

Table 3

Analysis of Variance Summary of Clusters of Reasons for Participation in Continuing Professional Education by Professional and Age Groups

	F-Ratio (Significance)			
	Main Effects		Interaction	
Reason Cluster	Age	Professional Group	Age x Professional Group	Multiple r
I. Professional Improvement and Development	1.23	47.52**	1.95*	.35
II. Professional Commitment	4.59*	79.80**	2.15*	.44
III. Personal Benefit and Job Security	5.05**	106.79**	3.57**	.53
IV. Professional Service	.23	92.38**	1.75	.47
V. Colleagial Learning and Interaction	.52	31.24**	1.08	.29

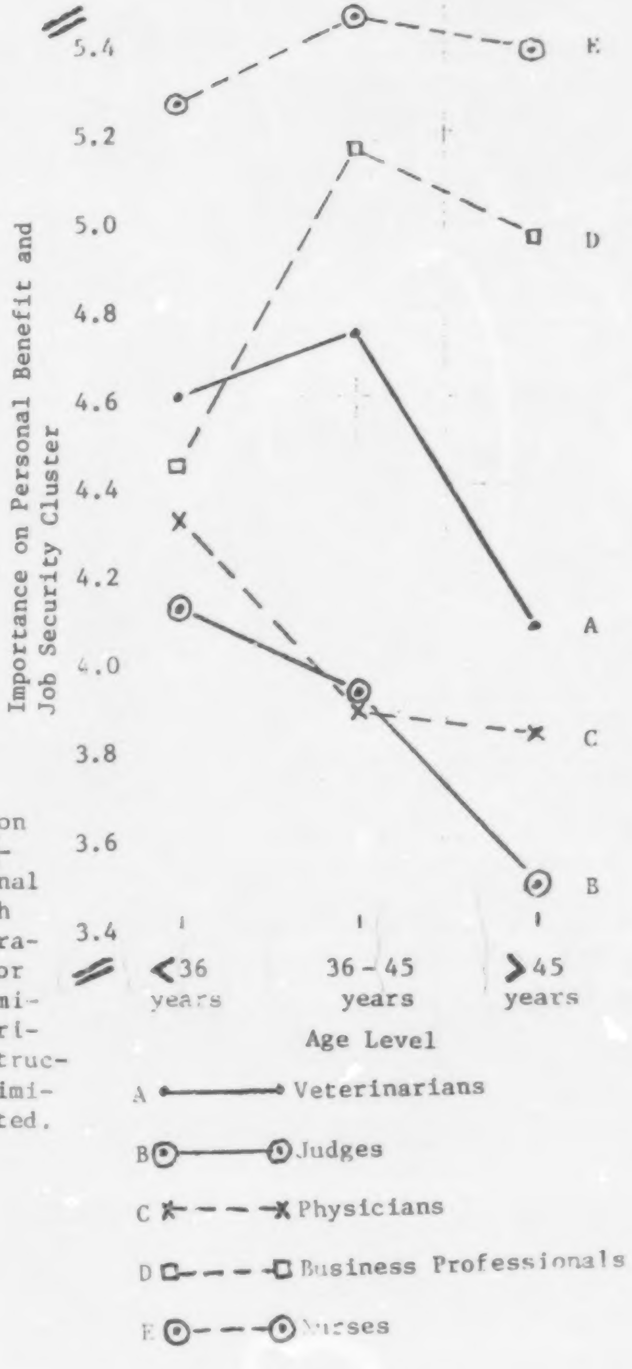
* $p<.05$
** $p<.01$

Table 3 also shows a marginally significant interaction between professional group and age for the Professional Improvement and Development cluster as well as for the Professional Commitment cluster. However, there is a significant interaction between age level and professional group for the Personal Benefit and Job Security cluster. The mean ratings for this cluster for the five professional groups are shown in Figure 2 on the right. This interaction appears to arise from the different rating patterns for nurses and business professionals as compared to the rating patterns for the judges and the physicians. At all age levels, the nurses and the business professionals were higher on Personal Benefit and Job Security than were the judges and physicians. Additionally, the youngest members of the judges and physicians attributed the highest level of importance to this cluster while the youngest group of nurses and business professionals rated this cluster lower than did their older colleagues.

Analysis No. 4

The final analysis addresses the question of the extent to which statistically derived factors for each of the professional groups are similar to the clusters which were originally developed for the comparative analyses. The factor structures for the professional groups were not all similar to the original clusters. The veterinarians responses yielded the closest structural resemblance. Discussion of the similarities and differences will be presented.

Figure 2. Mean Ratings on Personal Benefit and Job Security Cluster for Professional Groups by Age



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SYMPOSIUM

NATURALISTIC INQUIRY METHODOLOGIES APPROPRIATE TO RESEARCH ON ADULT LEARNING

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RATIONALE

In a world of pluralistic values and multiple truths where claims of certainty are replaced by claims of credibility and plausibility, Naturalistic Inquiry studies are receiving more and more attention by educational professionals as well as funding agencies and policy makers. At the University of Vermont, an 18 month National Institute of Education research study has recently been completed which is based on the tenets of naturalistic inquiry. The study focused on the self-directed learning efforts of little educated, rural adults.

The naturalistic approach to research was chosen for several reasons. First, it was important to use a mode of inquiry that was consonant with examination of a new domain of knowledge; i.e., the natural processes used by little educated adults in their self-directed learning efforts. Also, the exploratory nature of naturalistic research appeared to fit better than more conventional, hypothesis-testing modes of inquiry.

Second, it was important to utilize a mode of inquiry that would be responsive to the participants and their environment; something that would allow for one-to-one contact which was secure, open and facilitating. Again, the personal and humane aspects of naturalistic inquiry seemed to fit.

A third and perhaps foremost reason for selecting this approach was an adherance by the researchers to the philosophical and theoretical roots of naturalistic inquiry. These roots could be called phenomenology, discovery and expansion (vs. positivism, verification and reductionism). As stated by Bogdan and Taylor (1975),

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> The phenomenologist is concerned with understanding human behavior from the actor's own frame of reference...The phenomenologist examines how the world is experienced. For him or her the important reality is what people imagine it to be.

It was thus felt that a naturalistic approach would best communicate our intentions to rural adult learners in helping them describe to us their own realities.

In addition, it was our intention to develop case studies which would communicate these realities back to various publics, including the participants, themselves.

According to Wolf and Tymitz (1976-77), the naturalistic mode of inquiry

> ...attempts to present 'slice-of-life' episodes documented through natural language and representing as closely as possible how people feel, what they know, how they know it, and what their concerns, perceptions and understandings are.

RESEARCH DESIGN

The research was divided into two phases. First a replication of Allen Tough's interview research on adults' learning projects was administered among 93 randomly selected adults in a rural county. The county was selected because of its high percentage of people with little education and low economic status. The rationale for this phase was to establish whether this population was significantly different from other populations tested using Tough's interview. The findings from this phase closely paralleled what other replications have found, thus establishing that little-educated rural adults are not significantly different from other adult populations who have been asked the same questions.

With the completion of this base-line study, the researchers then launched into an intensive Case Study phase. In designing this phase, several professionals were consulted including Dr. Arthur Chickering (University of Tennessee), Dr. Roger Hiemstra (Syracuse University), Dr. John Wilson (Iowa State University), Warren Ziegler (Futures Invention Associates, Denver, Colorado), Dr. Jill Tarule (Goddard College), Dr. Charles Letteri (University of Vermont), and Dr. Robert Stake (CIRCE, University of Illinois at Champaign-Urbana).

The following chart represents the conceptual framework of the Case Study phase, including preliminary foreshadowing questions and the interview protocols some of which were adapted from existing ones and others which were designed by the researchers. The principle organizing concept was time progression: The items in the chart generally follow the chronology of the case study interview sessions.

Category	Case Study Foreshadowing Questions	Interview Protocol
DEVELOPMENT of LEARNING STYLE (Past)	1. What does a person's past reveal about their approach to learning? That is, what are the patterns (historically) or conditions (environmentally, developmentally) that help to explain how a person develops a learning style? Also, what obstacles or problems tend to limit or inhibit this learning?	Milestone exercise Coping With Conflict exercise
EXAMINING SELF-PLANNED LEARNING and THINKING STYLE (Present)	2. What do these people in rural settings need to be able to do (or know) in order to learn what they want to learn? That is, what functional, perceptual, cognitive skills/knowledge are prerequisites for learning in nonformal settings?	Learning Style exercise Cognitive Profile tests Modes of Thinking exercise
PROJECTION of LEARNING INTERESTS and GOALS (Future)	3. What aspirations, hopes and dreams influence how people learn or what they want to learn? That is, do long-range personal goals suggest emerging learning needs?	Futures Perspective exercise Self-to-Self exercise

CASE STUDY PROCEDURES

A subsample of 14 individuals was chosen from the original interview group to be co-researchers. Representativeness according to age cohort, sex, educational background and rural or small town residency were criteria used in selecting this subsample. Three researchers conducted approximately 15 hours of conversational interviews with each of the co-researchers over a period of six months. Most of these sessions occurred in people's homes and at times that were convenient for them, ranging from early morning to late at night.

During the visits the interviewers tape recorded and kept notes of the co-researchers' responses. Later, additional perceptions and information were recorded in journal-like fashion. After each visit the three interviewers gathered to discuss the interactions, solve any emerging problems and plan the next session. Modifications and adjustments of language and approach were made on a concensual basis. This provided a common understanding of the procedures as well as a sense of on-going support among the interviewers.

When the visits were completed, individual case study reports were written, condensing the many hours of conversation into the format of a biographical story. Several editings were conducted by different individuals, primarily for stylistic and grammatical purposes.

About three months later, when all 14 case stories were completed, the three interviewers returned to their respective co-researchers to check out the accuracy of the write-ups (and share the results of the cognitive tests). Some additional summary questions were also asked. This offered a chance to have a validity check on the data as well as bring some closure to the experience for both interviewer and co-researcher. Following these final visits, the case stories were retyped with suggested changes and then copies were sent to each co-researcher with a formal letter of thanks.

METHODOLOGICAL FINDINGS

Because this report focuses primarily on the methodological approaches taken in this naturalistic study, this section will discuss findings as they relate to these approaches. The appropriateness of each of the protocols will be addressed as well as some overall assessments of the methodology. (More complete analysis of the methodology as well as substantive findings will be available through NIE.)

Specific Methodological Findings

1. Milestone exercise was a good beginning because it gave people a chance to tell their life stories and became a reference point for later discussions. Besides helping to establish a rapport, it oriented co-researchers to how learning is connected to life events.

2. Coping with Conflict exercise brought out another dimension of learning - learning through adversity. It also helped to provide a more complete and balanced picture of a person's openness and readiness for learning.

3. Cognitive Profile tests were more obtrusive than originally planned, even though most of them were visually oriented and puzzle-like, rather than typical paper-pencil tests. They provided indicators of a person's abilities in information processing, and problem solving areas. Perhaps, they would be more useful for adults engaged in formal educational programs.

4. Learning Style exercise helped to uncover additional motivational data, (much of it rooted in one's personal history). It also revealed that most co-researchers approach self-directed learning in rational, step-by-step modes, but that often this was preceeded by preliminary actions such as visualization, modeling, and/or consulting with someone for help. Also, people tended to use multiple resources in their learning efforts; however, they seemed to rely on other people primarily.

5. Modes of Thinking exercise confirmed the everyday use of rational thought processes but also revealed people's awareness of, and comfort with, other modes of information processing including meditating, dreaming, psychic awareness, and "back-burner thinking."

6. Future Projection exercise helped people identify unfulfilled dreams and intentions, often producing totally new material not previously discussed. Some connected these dreams to desires for further education, thus this tool could be very helpful in setting individual long range learning goals.

7. Self-to-Self exercise was a good, reflective way to end the long, intensive sessions. For many, it was perhaps the most difficult exercise because of its self-conscious mode, but everyone seemed to approach it very honestly. Responses from this exercise are being analyzed from a developmental point of view.

GENERAL FINDINGS

Overall, the combination of exercises provided a means for uncovering a wealth of information about the co-researchers that would not have been possible had traditional surveys or questionnaires been used. They served as building blocks, linking the past with the present and future and surfacing data in an exponential rather than linear fashion. A useful way of visualizing this process might be to consider it as a helix, building from small beginnings and concrete memories to larger expressions of reality and reflective thinking. Thus, everytime a revolution is completed, it builds on what has already occurred, resulting in the final case description being greater than the sum of its parts. This, again was consonant with the approaches of naturalistic inquiry, and was considered to be a virtue of the study.

While the exercises used in the study were considered useful, they did have some drawbacks when measured against the canons of pure naturalistic research. They consisted of interview protocols prepared in advance as well as open-ended conversation. This resulted in a sense of time constraint on the part of the interviewers. Nevertheless, every effort was made to build in spontaneity and responsive probing, and to make the interviewing process as unobtrusive as possible.

USES AND IMPLICATIONS

Because of the exploratory nature of this study, it would be inappropriate to make firm generalizations based on the findings; however, we could make some projections on its usefulness as a methodology. In light of this, the third and final phase of the study, the Dissemination Phase, was planned in such a way as to expose several audiences to the data in order to receive feedback on its potential usefulness in other domains. This approach is also in keeping with naturalistic study since it seeks multiple perspectives to a body of information in order to clarify and elaborate upon its meaning. Several group sessions, including an interdisciplinary professional gathering of consultants, a Vermont state-wide conference of adult educators, a professional association meeting of Vermont Extension personnel and numerous informal and formal meetings at conferences have afforded the opportunity of investigating further uses and implications of this type of study. Albeit very tentative, some of these suggestions are:

1. Several exercises may be useful for assisting adults' re-entry into an educational program, providing naturalistic data on prior knowledge and skills, preferred modes of learning developmental patterns related to learning and attitudes toward self and learning.

2. Since most adults seem to learn well on their own and utilize multiple resources, communication and information services might be further explored in facilitating this learning - especially in situations of long-distance learning.

3. As a consciousness-raising approach, several exercises might be useful for individuals or groups in a variety of contexts, including church programs, adult basic education programs, fox-fire projects on oral history, interactive T.V. programs or just small informal neighborhood gatherings.

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SYMPOSIUM

DOING PHILOSOPHICAL RESEARCH IN ADULT EDUCATION

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INTRODUCTION

The philosophical foundations of adult education is an important area of research and investigation. Understanding philosophical issues and operating from a philosophical perspective cannot but help to inform practice and lead to greater professionalism of the field. Indeed, adult educators who adopt a personal philosophy will find they have guidelines from which to make decisions, as well as better understand how their work interfaces with community and societal goals. In contrast to other areas of adult education, however, research in philosophical foundations is sparse. This is partly due to the complexity of issues involved, and the lack of clearly defined procedures for doing such research.

The purpose of this symposium is to explore the issues and questions involved in doing philosophical research in adult education. Specifically, the following questions will be addressed by the participants: What is philosophical research? How should one go about doing philosophical research? Who can do it? What are the sources available to the researcher? How does one select a topic? How can the validity of conclusions be tested?

THE NATURE OF PHILOSOPHICAL RESEARCH IN EDUCATION

Wonder is the root of philosophy -- the capacity to be in awe of what exists and to raise questions about why it is the way it is. Philosophers also wonder why some things are true and others are false, why some things are good and valuable while others are judged bad and worthless. They wonder about the beauty and ugliness of things, the unity and diversity in the world. Plato and Aristotle, the first philosophers of education, wondered about how best to educate persons for life in the society which existed, and in the one which they thought should exist. Both were concerned with lifelong education since they considered the learning in later life essential for developing persons to their fullest potential.

Through the years philosophers of education have been concerned with the methods used in arriving at beliefs, and the evidence given for the truth of these beliefs. Some appeal to religious writings for the truth of their assertions. Others appeal to common practice, intuition, common sense, and accepted authorities. From the beginning, however, the greatest philosophers appealed to the power of rational thought or logic to provide evidence for the truth of their assertions. Philosophers use both inductive (from the particular to the general) and deductive (from the general to the particular) reasoning to provide evidence for their theories. Although some philosophers might describe their work as research, most see themselves as involved in inquiry and analysis. Adult educators then, who wish to engage in philosophical research need to divest themselves of preconceived patterns of empirical research, and adopt a spirit of philosophical inquiry and analysis.

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Much of the philosophizing in adult education has dwelt upon the development and expression of personal credos in response to the prevailing question of "what is your philosophy of adult education?" The works of Lindeman and Bergevin are good examples of this approach. A second notable approach to philosophy in adult education is characterized by the studies which refer to the relevance of the history of philosophy, branches of philosophy (epistemology, aesthetics) basic philosophical systems or schools (idealism, experimentalism, and so on) and other areas of philosophical inquiry (philosophy of science, philosophy of religion). This is the kind of investigation undertaken by Apps, Elias, Merriam, and others.

DOING PHILOSOPHICAL RESEARCH IN ADULT EDUCATION

One becomes a philosopher in the same way one becomes anything else, by doing it preferrably under the guidance of a master. Everyone has a head start in the race to become a philosopher because common sense observation is the first part of the process. The next competency is more difficult to come by: logical thinking. Some of this is picked up by ordinary human living. The finer points usually come from reading, study, doing philosophical battle, practice and exercise. Not having studied philosophy does not disqualify one from being a philosopher, as Eric Hofer proves. Paradoxically, it appears that the less you allow your mind to be cluttered by conflicting data and approaches to truth, the better philosopher you will make.

The philosophic spirit and attitude exists on the same continuum as the general human spirit -- it moves from objective to subjective poles. Philosophers are perhaps less disposed to view the subjective with suspicion, lest they lose one of their most valued source of information. Since no controlled experiments and systematic surveys are appropriate in this field, philosophy, with history, literature, and the arts, depends upon the verdict of contemporaries and posterity for its validation. Often the beliefs of one philosopher become the grist for another philosopher's mill.

It is clear that philosophers feel free to look anywhere for sources of opinions and beliefs. Every field has its philosophy: philosophy of law, medicine, education, religion, art, history, science, and on and on. Philosophers usually have an academic area or field of practice that they do their philosophizing about. For Aristotle it was biology, for Plato and many others it has been politics. Fortunately for education, one of Dewey's fields was education. Education has attracted the attention of many first rate philosophers. Besides Plato, Aristotle, and Dewey. philosophers who have devoted attention to educational issues include Augustine, Aquinas, Rousseau, Loche, Kant, Hegel, James, Whitehead, Maritain and many others. Adult education also has not been without its philosophers: Lindeman, Hutchins, Blakely, Bergevin, Bennis, Kallen, Freire, and others. This rich tradition is being continued by more contemporary philosophers of adult education.

RECENT APPROACHES

Linquistic (conceptual) analysis and phenomenology are two approaches most recently employed by philosophers in looking at educational issues. The British conceptual analysts Lawson (1975) and Paterson (1979) have done pioneering work in analyzing fundamental concepts in adult education: adult, adult education, needs-assessment, equality, teaching-learning processes. Monette (1979) has done valuable work in the area of the concept of needs. The beginnings of philosophical work lie in this area. An analysis of adulthood and adult education needs to be done with more sensitivity to the North American cultural situation. Other concepts that need analysis include community education, lifelong learning, accountability, adult development, and adult rights and responsibilities.

Phenomenology or analysis of consciousness is another approach. A good start in this area is found in the work of McKenzie (1978) and Greene (1973). Maxine Greene is an American philosopher of education who has examined through existential philosophy and literature, many themes that are pertinent for adult educators: freedom and determinism, aging process, male and femaleness, death, community, alienation, authority, equality, love, agression, and interpersonal relationships.

The validity of these two approaches is an important consideration for an adult education philosopher. Ultimately, linguistic analysis is tested by the extent to which it clears up conceptual confusion and ambituity. A strong case might be made for its validity in sharpening the concepts and operational definitions which guide practice and research in adult education. Phenomenological investigations are validated by the evidence which they bring to bear and the extent to which they open the way to further research.

Conceptual analysis uses human language as its data base; phenomenology uses human consciousness. Two other data bases have also been used to philosophize from: personal observations of the world and eternal and absolute truths. Whatever the point of departure, education, and in particular adult education, is in need of a continued systematic examination of its concepts, issues and underlying assumptions. Such research can offer not only insight and understanding but guidance for the practice of adult education.

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SYMPOSIUM

EARLY APPROACHES TO WORKERS' EDUCATION: AN INTERNATIONAL PERSPECTIVE

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INTRODUCTION

In his classic book In Quest of Knowledge, C. Harley Grattan laments the failure of adult education to bring to the wayfaring man the knowledge and understanding necessary to manage their lives. His historical perspective reveals attempts by adult educators to design institutions and programs for working men only to have them attended by supervisors or other individuals of higher rank.

The purpose of workers' education was described as follows:

> [It] is designed to meet the special needs of wage earners who have had little formal schooling. Its chief purpose is to stimulate an active and intelligent interest in the economic and social problems of the times, and to develop a sense of responsibility for their solution. In contrast to the broader curriculum scope of general adult education, topics of study are for the most part confined to industrial and labor problems of particular concern to the worker (Grattan, 1955, p. 252).

In this symposium, we will explore the following questions as they apply to workers' education in three countries: England, Ireland and Finland.

Has adult education been successful in planning programs to meet the educational needs of workers?
How did the concept of workers' education evolve?
Who provided workers' education, by what means, and for what purpose?
What forces shaped its direction?

Each participant will address these questions within the context of the pre-industrial, industrializing, and industrial periods.

ENGLAND

From the late 16th century until the early 19th century, England had a mandatory system of apprenticeship, intended to provide the necessary skills for its workforce and to instill moral principles and acceptance of the status quo. This paternalistic system largely comprehended the facilities available for the education of workers in the handicraft economy preceding the Industrial Revolution.

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With the onset of the Industrial Revolution (whose classic period is 1760-1820), stresses and strains developed in the apprenticeship system. The rise of literacy and formal school provision was accompanied by substantial technological developments and the evolution of new trades not encompassed by the traditional apprenticeship system. Social and economic changes cast the worker in a new light, and created a climate both antipathetic to maintenance of the status quo, and suggestive of the probability of unbounded scientific and technological progress. In this changed climate was born the mechanics institute movement, which spread to the United States, Canada, Australia, and New Zealand. Perceptions of the content of worker's education underwent change, as did notions of responsibility for its provision, and the methods employed in its delivery.

As the working classes began to develop their own social consciousness in the early 19th century, dissatisfaction developed with the predominantly narrow, utilitarian view of workers' education as being "useful knowledge." This dissatisfaction was shared by some of the middle class promoters of the voluntary educational agencies, although funding for a broader concept was difficult to obtain. Some educational experiments were, however, conducted and, in order to retain enrollments, some intitially circumscribed programs were broadened. However, national recognition of the importance of workers' education did not come until the late 19th century, since the country was benefiting from its early lead in international markets.

By the close of the 19th century, male workers had obtained the franchise, and public provision of adult education had been instituted. Under the stress of increased foreign competition in trade, and an enlarged view of government responsibility, there had evolved a substantial system of technical education for industrial and agricultural workers, and some general adult education to supplement the now compulsory schooling. A strong social class differentiation of "the worker" remained, and while the earlier "useful knowledge" had been supplemented by much more classroom theory, the public education intended for workers remained subject to arbitrary legislative interpretation. The early 20th century has to witness yet other efforts to graft the stem of liberal adult education onto workers' education, and to involve the trade unions in its provision.

IRELAND

There is a sense in which the ethos of labor and education conflict. Manual labor is seen to devour a man's and woman's time, leaving but a sprinkling of that scarce commodity for rest and sleep and aught else. Education pursued during rare moments of leisure may liberate a man or woman and is ever in danger of drawing them away from the corroding sweat of the coalface. We shall anticipate then that a worker's pursuit of knowledge, even his opportunity to engage in that pursuit, increases, just as surely as his boss's hold on him decreases. Early attempts to increase literacy among workers in Britain were fought tooth and nail not only by the growing class of capitalists but by politicians fearful of the rupture in the status quo: the idea that a man - and even a woman - might not keep to his/her rightful place in the order of things. Early attempts to spread elementary education among the poor in Britain failed save insofar as they were linked to legislation which reduced the hours a child spent toiling in a factory.

But this political linking of education to the demands of labor was not really an issue before the Industrial Revolution. With it and its extraordinary transformation of the manufacturing process, the war between educational rights and labor requirements was waged full bloodedly in the swirling smoke of the national foundry. Literacy in Britain stagnated during the first half of the 19th century as the Industrial Revolution got underway with a vengeance. In Ireland an already grave situation was exacerbated through colonization. Long subject to the tyranny of Britain, the country finally lost the shallow vestiges of parlimentary control in 1800. It would not retrieve them again until 1922. With the passing of political control to Westminster, the 19th century in Ireland was characterized by grinding agrarian poverty, vicious, inevitable rebellion, and the cataclysm of famine. The period 1800 to 1900 saw Britain reach the full maturity of imperial majesty, and its population rise from 9 million to an astonishing 33 million. In that same period the Irish population which had risen to 9 million by 1841 fell to a catastrophic 5 million after two extraordinary years of national famine.

The rise of industrialization in Ireland was slow. Moreover, it was quite unevenly distributed, flourishing in the Protestant-dominated North by means of the linen industry, growing indifferently if at all in the South. Yet was not this a century of contradictions? For even as the mass of the population slipped ever deeper into poverty, it was still possible for James Connolly, an early chronicler of Irish labor history, to write of Irish Trade Unionism as having "attained to its maximum of strength and compact organisation" (1919, p. 75) in the early 1800s. In 1824 the chief constable of Dublin gave evidence that the trades of Dublin had grown so strong that the employers were already beginning to complain of their "tyranny." This was also the time of the astonishing William Thompson, a County Cork landlord, claimed by Connolly to be the first true European socialist and the legitimate forerunner of Marx. Ireland too had its visit from the redoubtable Robert Owens, the industrial utopian and founder of New Harmony, Indiana, who inspired a County Clare landlord to set up the first Irish socialist-utopian commune. This also was the time that the British, ever eager to experiment with institutions anywhere but in the homeland, inauguated a National System of Elementary Education in 1831, almost forty years before they permitted one in Britain.

It is against this quick-changing backdrop -- the contradictions of famine and institutional innovation -- that we examine early forms of workers' education.

FINLAND

Working class educational activity in Finland can be traced to the volunteer university student association sponsored lectures during the 1860's. From the beginning of the working class movement, it was dominated by public spirited employers and educated members of the local communities. The definition of working class educational activity until the 1890's needs to be viewed in this context. The earliest independent, culturally significant activity of the working classes occurred in the 1850's through the activities of the Helsinki and Turku workers singing groups and musical bands. Formal classroom educational instruction was first offered to factory workers in Tampere in 1861 -- supplemented by a lending library. After three years of classroom instruction it ceased operations but the lending library remained active. However, educational activity continued after 1872 with lectures sponsored by workers and factory owners alike.

In a climate of rapidly industrializing towns and cities, the first workers associations were established. Helsinki and Vaasa (1883), Oulu (1886), Pori, Savonlinna, Tampere, and Turku (1877), all were built by factory owners, master craftsmen, and others educated to the needs of the workers. Their purpose was to establish a thirst and desire for learning alternatives to class conscience revolutionary teachings. Later supported by their cities, they formalized their educational activity into vocational and general educational programs. However, with the vast majority of the working class only barely literate they began organized classes in basic writing skills, arithmetic, and later accounting.

By the end of the 1890's, the workers movement changed its direction toward more independence. With the establishment of the Finnish Worker's Party in 1899, many workers associations joined it and received a political label. After the Party's congress in 1903, a Social Democratic program was adopted. The ordinary teaching activities of these workers' associations shifted away from earlier basic educational instruction to political agitation. It was the lecture, however, that remained the basic method of adult education in industrializing Finland, in spite of other forces at work.

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SYMPOSIUM

CONTRIBUTIONS OF THE RESEARCH PARADIGM TO ACADEMIC PROGRAM REVIEWS IN HIGHER EDUCATION--HELP OR HINDRANCE?

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ACADEMIC PROGRAM EVALUATION

Procedures for systematic evaluation of academic programs in higher education were implemented at a large number of institutions in the 1960s and '70s. Purposes vary from institution to institution, but three common threads are a concern for program improvement, a concern to link quality considerations to academic and fiscal planning and a concern to satisfy public accountability demands while retaining academic decision-making within the university community. Procedures range from program self-study to external peer review to accreditation. Craven indicates there is broad consensus that the '80s will bring increased academic program evaluation activity in all sectors of higher education.

The University of Wisconsin System established a requirement for systematic academic program evaluations within all system institutions in the mid-'70s. The result has been the introduction of academic program evaluation procedures in the University of Wisconsin-Extension, the statewide outreach institution of the UW System. Although the mission and programs of UW-Extension differ from those of degree-granting institutions, many of the issues involved in establishing and operating an academic program evaluation system are very similar.

Scientific research is a fundamental activity in higher education. Faculty are aware of its canons and procedures. The inquiring characteristic of program evaluations has many similarities with those of research. Though academic program evaluations are not consciously designed as scientific research endeavors, the concerns and protocols associated with research frequently have a bearing on expectations, information collected, on audiences involved and on other elements of designing program evaluations.

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This symposium presents four papers that explore the contributions of the research paradigm to academic program evaluation with specific reference to evaluations underway at the University of Wisconsin-Extension. The basic question they address is whether and how the insights and standards of the research paradigm help or hinder effective understanding and operation of program evaluations.

Smock outlines two basic dimensions in academic program evaluations: (1) the network of people that plan for and consider evaluation results, and (2) the data that are employed during the process of program evaluation. The papers by Forest and Zimmerman focus on concerns related to the people network. Those of Eriksson and Rossing address designs for data identification, collection, use and interpretation. Each paper defines a particular issue, presents alternative solutions or interpretations, and proposes ways of resolving the issue.

PROGRAM REVIEWS: ARE THEY SOCIAL POLITICAL PROCESSES OR SCIENTIFIC RESEARCH?

Laverne Forest

In this paper Forest reviews theories of political activity and political systems and examines whether program evaluations can be adequately described and interpreted as political activities in a political system. He proposes a politically-oriented model for describing program evaluation settings and process that has two parts. First, the setting is defined in terms of (1) characteristics of the institutional system, (2) the size of the program, and (3) the extent of value conflict in the situation. Second, the process is defined with reference to (1) articulation of interests, (2) power plays, and (3) decision-making. Program evaluations underway at UW-Extension are examined against the model. Evaluation activities are also reviewed against expectations of the scientific research paradigm.

The model and examination do two things. They demonstrate the aptness of the political metaphor as an explanatory vehicle for understanding academic program evaluations. The political metaphor appears to provide a more complete and accurate description of the nature of program evaluations than the scientific research paradigm. Forest then raises questions about the applicability of the research paradigm to program evaluations. He argues that idealized scientific research is a process that seeks "the true" and idealized politics is a process that seeks "the good". The motivations and procedures of each process are fundamentally different. Given that program evaluations are best understood as political activities, Forest points out difficulties in applying the standards of research or expecting research-like activities to take place in these evaluations. He proposes that program reviews should be consciously designed and carried out as political activities of the institution.

PERSONNEL LOGISTICS AND EVALUATION VALIDITY

Harry Zimmerman

In this paper the logistical aspects of assigning program evaluation tasks to a variety of personnel are examined in relation to the validity of the evaluation. The analysis is focused on a situation involving a large, diverse program area undertaking a program self-study, using value-related criteria, and reporting results to a comprehensive set of internal and external audiences.

Zimmerman seeks to apply the concepts of validity and reliability derived from scientific research and measurement. Validity is examined in relation to the inferences or conclusions generated by the evaluation. In this context validity refers to the content or face validity of pooled judgments. Predictive and concurrent validity are not considered especially applicable. Reliability is viewed as the degree of agreement between professionals participating in the evaluation.

Four ways of dividing up the information gathering and analysis task are reviewed. Zimmerman proposes that the best strategy is one whereby individual faculty assemble information in response to specific questions and pass it on to team leaders who coordinate it and combine it in relation to overall criteria guiding the evaluation. Such an arrangement should result in an aggregate of agreed upon understandings. Validity is enhanced through involvement and integration of a variety of insights, beliefs and understandings.

PREORDINATE VERSUS RESPONSIVE APPROACHES TO PROGRAM REVIEWS

Karen Eriksson

This paper contrasts preordinate and responsive approaches to academic program evaluations. The distinction is derived from Stake and Guba. The two concepts represent poles of a continuum. At one extreme are preordinate evaluations where the focus, questions and criteria are established in advance. At the other end are responsive evaluations in which the design is developed through interaction of faculty, evaluation specialists, administrators and other audiences. Eriksson examines the philosophical bases underlying these two approaches and clarifies the ways in which they do and do not differ. She shows the parallel of these two approaches to inductive versus deductive research.

In the second part of the paper, Eriksson establishes three guidelines for effective program evaluations: appropriateness for the situation, acceptability to people involved, and facilitation of positive programmatic results. Using evaluations conducted in UW-Extension, she then compares preordinate and responsive approaches on the basis of four features of program reviews: (1) situational characteristics, (2) program characteristics, (3) people characteristics, and (4) desired evaluation outcomes. Eriksson concludes that most evaluations include elements of both preordinate and responsive approaches and that the optimum balance should be selected on the basis of criteria for effective evaluation and programmatic factors.

USE OF QUANTITATIVE VERSUS QUALITATIVE APPROACHES FOR DATA COLLECTION AND INTERPRETATION IN PROGRAM REVIEWS

Boyd Rossing

Quantitative research methods are often employed in social sciences to obtain generalizable truths using objective, replicable designs and techniques, and sophisticated statistics in the collection and interpretation of data. A competing research paradigm uses qualitative methods that emphasize human experience, judgment and qualitative description to arrive at truths that more fully represent the varied and interlocking dimensions of social experience.

Rossing draws on literature contrasting the quantitative and qualitative research paradigms for insights that have application to academic program reviews. There are two principal levels of application: types of evidence used in program reviews and types of judgment processes whereby evidence is related to criteria guiding the review.

To provide background for the discussion of issues, Rossing briefly reviews typical purposes and criteria of program reviews and typical examples of qualitative and quantitative evidence. Several issues that bear on the selection and use of types of evidence and on the manner of interpretation are then presented. These issues include: reliability, representativeness, validity, and bias of evidence; credibility and relevance of criteria and sources and types of evidence to different audiences; trust, fairness and justice; time pressures, feasibility and cost; use of positive and negative evidence for judgments and improvement; and component versus holistic judgment.

Rossing concludes by suggesting a number of guidelines for carrying out program reviews that provide opportunities for resolving or mitigating conflicting elements in the issues surrounding evidence and judgment in program reviews. The recommendations essentially emphasize clarity of purposes, involvement of relevant audiences, multiple data sources, sensible scheduling and promotion of a healthy environment for self-criticism and improvement.

SYMPOSIUM

LITERARY WORKS AS A DATA SOURCE IN ADULT EDUCATION RESEARCH

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INTRODUCTION

Literature offers a rich resource to researchers in adult education. Sensitive and perceptive literary artists express aspects of human behavior not readily accessible to researchers using conventional techniques. The purpose of this symposium is to provide a rationale for the use of literature as a data base for naturalistic inquiry in adult learning and adult development. In addition to outlining the special attributes of literature which make it a particularly useful data source, three studies using literary works as data sources will be discussed. For each study the following topics will be addressed: criteria for the selection of literary works; the purpose of the study; the way in which the data were handled; and the efficacy of using literary materials for research in adult education.

LITERARY WORKS AS DATA

Literary works readily lend themselves to a naturalistic inquiry into adult development and adult learning. As opposed to more conventional methodologies, naturalistic inquiry is distinguished by several general characteristics:

1. The investigator approaches the data base without predetermined hypotheses or theoretical categories. Hypotheses and categories evolve from the data source.
2. The investigator performs no manipulation of conditions antecedent to the inquiry.
3. The investigator, initially at least, places no restrictions on the range of possible responses. The output of the inquiry is not measured in arbitrarily restricted units.

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As observed by Wolf and Tymitz (1976-77), naturalistic inquiry focuses upon "slice of life episodes documented through natural language and representing as closely as possible how people feel, what they know, how they know it, and what their concerns, beliefs, perceptions, and understandings are."

In the study of adult learning and adult development, the importance of a full-life perspective is particularly apparent. These are not topics which can be readily isolated for laboratory analysis. Adult learning and adult development are indissolubly bound to other life processes -- an inseparable part of life as a whole. In these areas we are dealing with multiple realities which can only be understood in relation to each other.

Literary works offer not only appropriate contexts for research in adult learning and adult development but other advantages as well. Literary artists are disciplined observers and effective communicators. They are master psychologists whose work provides us with knowledge about the workings of the human psyche. Literature is accessible; data needs to be extracted and interpreted, but not collected. Literature affords the opportunity for longitudinal studies of developmental process since biography, autobiography, and some fiction "cover" an extended time-frame. On the whole, literature as a data source facilitates both the discovery and the illumination of insights about human behavior.

LIFELONG LEARNING IN UTOPIAN LITERATURE

Purpose

The purpose of this study was to explore the use of utopian literature as a data source for better conceptualizing the concept of lifelong learning. The study explored the concept of utopia as conceived by Plato, More, Bellamy and Skinner. Specifically, the study examined the place of education in utopia, discussed the utopian educational agencies and institutions, and defined the elements of lifelong learning present in the educational systems of The Republic, Utopia, Looking Backward and Walden Two.

Criteria for Selection

The general criteria for selection of the literary works were: the intent of the author (with purely escapist fantasies, satires and anti-utopias not included); endurance, recognition, and social impact of the work; and representativeness of the sample of utopian thought as it applied to education in Western civilization.

Plato in the 4th century B.C. was the first writer to give a literary focus to the dream of perfection, and his work The Republic is widely recognized as the first major utopian work. This book portrays a perfect society, an ideal city of the future, intended to provide a harmonious balance of social classes with each individual contributing his own special aptitudes and skills to society. A carefully developed educational system is the basic institution of Plato's vision of perfection.

About 18 centuries lapsed between the writing of The Republic and the publication of Sir Thomas More's Utopia in 1516. Utopia is often considered to be the greatest of the utopian works and it was More who coined the term "utopia." Education is an integral part of More's societal scheme, and he depicts a society in which although there is no formal curriculum, education is of paramont importance.

Edward Bellamy's Looking Backward was one of the three greatest best sellers of the late 19th century. Like most utopian expressions, it represents the author's response to his own era. As part of the complete social philosophy embodied in his book, Bellamy advocated total and universal free education.

B. F. Skinner's one venture into imaginative literature, Walden Two, written during the early 50's, is probably his best known work. Like most utopian fiction, Walden Two is important less for its literary value than for its philosophy. In this work Skinner outlines a behavioral science program for living. The education process in Walden Two is lifelong.

Methodology

Each work in the study was assigned equal value. Content analysis was then used to reveal the frequencies of different attitudes on specific issues and values related to the concept of lifelong learning. For purposes of this study, the concept of lifelong education was defined using the UNESCO Institute for Education concept characteristics and features.

Utopias as Data Sources

The works in this study were richly illustrative of each writer's social problems of his time as well as the role of education as a solution to those social problems. The study revealed that although it was not until 1972 that the UNESCO Institute for Education focused its international research program on the content of education in the perspective of lifelong learning, the concept itself has its origins in the distant past and features in the works of a large number of philosophers and educators.

AUTOBIOGRAPHY AND SELF-DIRECTED LEARNING

Purpose

The purposes of this study were to (1) compare and contrast the learning activities of thirty adults in order to identify learning principles, (2) explore the usefulness of autobiography as a basis for learning activities analysis, and (3) develop an instrument for presenting autobiographical data and interpreting learning activities.

Criteria for Selection

Six Adult Learning Projects as defined by Alan Tough were used as a minimum requirement for inclusion in the study. Eliminated from the study were fictionalized, ghost written, or multiple-authored autobiographies as well as accounts of foreign-born persons who had not lived in the United States for at least twenty years.

Methodology

Background for the study was provided by a review of the history and nature of autobiography and a survey of self-directed learning as it relates to this art form. The literature provided several cues concerning the preparation of forms which would yield data regarding the autobiographers and their learning activities. The work of Kidd and Tough provided the conceptual basis for the use of probes into a first person written account.

The initial step in this attempt to extract adult learning information from autobiographies was the construction of a Biographical Sketch which furnished a variety of personal data about the autobiographer, including a section about his or her adult learning projects. This form was used as a point of departure to the Learning Activity Analysis form which represented the focal point of the study.

The second step was the compilation of a list of questions based on common topics in adult learning such as motivation, learning objectives, and the effects of formal education. The Learning Activity Analysis form was designed to describe the quantitative and qualitative involvement of the autobiographers in adult learning. Three sample autobiographies were used to sharpen the effectiveness of the questions and to determine the need for additional probes. After the selection of thirty autobiographies, each source was gleaned for appropriate references to support responses to the questions posed in the Learning Activity Analysis. Although the question cluster after each number are designed to be discrete, some overlapping and cross-referencing was inevitable on each form.

Autobiographies as Data Sources

Autobiographies proved to be an uneven source of information for learning analysis. Most writers did not refer directly to their learning activities in autobiographies, though the impact of learning upon their lives was pronounced. The works varied widely in form, attention to detail, length, time period, and dozens of other variables. Comparisons between autobiographies were difficult, and inconsistencies within these works frequently occured. Nevertheless, much was uncovered about the learning activities of these thirty individuals and the researcher feels that autobiography holds promise for future research.

MALE MIDDLE AGE IN MODERN FICTION

Purpose

The general purpose of this study was to generate new knowledge and insight into the male mid-life period of development. This was undertaken through a comparative analysis of literary works using the inductive methodological techniques of gounded theory research. Specifically, the purposes of the study were to: (1) uncover new insights, theoretical constructs and hypotheses related to the male mid-life period of adult development and to interpret these elements of theory into a general explanatory paradigm; (2) explore the utility and validity of literature as a data source; and (3) demonstrate the efficacy of applying grounded theory data analysis techniques to literary materials.

Criteria for Selection

Eight twentieth century American novels and four plays were selected as the data source. All the works selected met the following criteria: (1) the protagonists were middle-aged males; (2) the works possessed literary merit; (3) the works were sufficient in length to derive adequate information; and (4) the works were written and unhampered by complex symbolism. Six post World War I works (The Professor's House, Babbitt, Tender is the Night, You Can't Go Home Again, They Knew What They Wanted, The Adding Machine) and six post World War II works (Herzog, Something Happened, Point of No Return, A Month of Sundays, Death of a Salesman, The Night of the Iguana) were selected for analysis.

Methodology

Grounded theory, a research methodology developed by sociologists Glaser and Strauss (1967), provided the analytical framework for this inquiry. This methodology emphasizes inductively generating theory which is "grounded" in the data, rather than testing hypotheses or describing empirical phenomena. The basic strategy in grounded theory research is the constant comparative method of data analysis. Categories, properties and hypotheses (elements of the grounded theory) emerge simultaneously throughout the process of data collection, coding and analysis.

As each novel or play was read, all references having to do with being middle-aged were underlined and noted. With the reading of successive literary works, verification and strengthening of earlier categories was sought while at the same time remaining open to allowing new or more "sensitizing" categories or properties to emerge. In addition, memos on each book and memos comparing the experiences of two or more protagonists were written throughout the process.

As the relationships between categories and properties began to crystallize, earlier read works were returned to for verification. The emergent categories, properties and the twelve works were assigned code numbers and punched on McBee Key Sort Cards. These cards greatly facilitated the analysis and writing of the findings of this study. Five major categories and their defining properties emerged from the study and were integrated into an overall explanatory paradigm for male middle age.

Fiction as a Data Source

The comparison of this study's findings to those of psycho-social research revealed that literature can offer support for empirically-based knowledge as well as uncover new insights about male middle age. Differences in literary style and historical period had no effect on the work's usefulness as a data source. Literary genre did make a difference in this study, however, with novels proving to be significantly more productive than plays. Literature thus appears to be a potentially valuable source of information about adult development. Gounded theory research can provide the techniques necessary to carry out a systematic inquiry.

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